

DARGUE'S DESTINY

by J.J. Snyder

MONDAY, 8 DECEMBER 1941, DAWNED OVER WASHINGTON on a scene of frenzied activity. The surprise Japanese air attack on Hawaii the previous day had shocked and appalled the nation. As the toll of dead and injured personnel continued to climb, the damage to military and Naval installations was estimated in the hundreds of millions of dollars, and being revised upward hourly. The horror and disbelief of the American people at this stunning blow was beginning to give way to a mood of resolute confrontation of the World War which had now engulfed the United States.

That afternoon, shortly after President Roosevelt's "Day of Infamy" address to Congress asking for a state of war with Japan, a group of high-ranking Army staff officers met in an annex of the War Department. They had been called together by Secretary of War Henry Stimson to advise him in the selection of a general officer who would immediately fly to Hawaii and relieve Lieutenant General Walter Short, the Army commander there, of his duties.

Stimson had acted quickly in deciding to remove Short. He felt it was extremely critical to national security that the change of command be made with the utmost possible speed. While at this time not wholly blaming the General for the lack of preparedness which had made the Japanese attack so successful, the Secretary believed that a second carrier-launched strike, this time supporting an invasion of the islands, could be imminent. He felt that new leadership was an urgent necessity to help the demoralized Army forces in Hawaii meet this threat. If Japan were to gain control of Hawaii, the future of the United States as a free and independent nation would be in grave jeopardy.

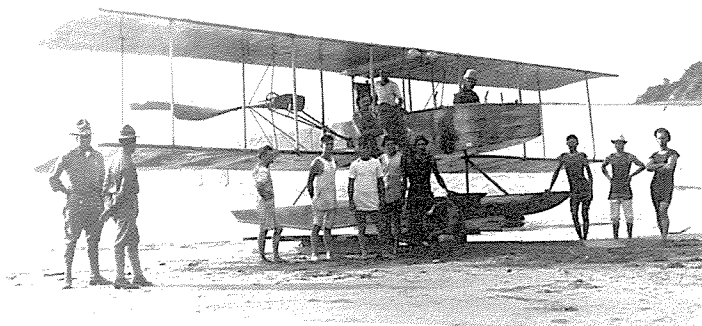
The new commander would begin an investigation to determine why the deadly Japanese strike had met with such success. He would construct and expedite an emergency defense plan for the islands and their outlying bases, and oversee the rebuilding of vital military facilities.

Each of the generals in attendance at the meeting had in mind a candidate whom he felt would be best suited for this crucial assignment, and each put forward to Secretary Stimson the various reasons why his nominee should be chosen to head the Army Hawaiian Command. When his turn came to speak, Major General Henry H. "Hap" Arnold, Chief of the Army Air Forces and Deputy Chief of Staff for Air, nominated his longtime friend and fellow aviator, Major General



New York on the water at Valparaiso, Chile.





Dargue at controls of Burgess Coastal Defense Hydroplane Signal Corps No. 17 on Corregidor, 1914. It was in this aircraft that Lieutenants Dargue and Mauborgne accomplished the first Army two-way air/ground radio communications. (NASM)

Dargue in cockpit of unidentified aircraft, possibly an early Curtiss "J" model with Deperduissin wheel control. Note football helmet, tinted goggles, and locomotive engineer gloves. (NASM)

Curtiss "J" model training aircraft at North Island, circa 1916. (NASM)



Herbert A. Dargue, as the man whom he felt was the best choice for the assignment.

Although each of the officers under consideration was well qualified to shoulder this critical responsibility, Stimson was so impressed by Arnold's glowing account of Dargue's talents and fitness for the job that he appointed him to the post over the other nominees, several of whom outranked him.

No doubt another major reason for Stimson's selection of Dargue was his feeling that victory in the coming Pacific struggle would be decided largely by the deployment and use of airpower, and that an Army Air Forces general with both strategic and tactical aviation expertise would be the logical commander to replace Short.

Dargue was notified of his selection, and began immediate preparations to fly to Hawaii.

HERBERT ARTHUR "BERT" DARGUE WAS BORN IN Brooklyn, New York, on 17 November 1886. After graduating from high school, he began work as a grade schoolteacher in New Jersey. Educational requirements for teachers and administrators in those days were not stringent, and by the time he was 19, Dargue was principal of a combined grammar and junior high school. At this point he decided to change careers, and chose the life of a soldier over

that of an educator.

He entered the United States Military Academy in 1907, and was graduated 30th in the class of 1911. Dargue took his commission as a second lieutenant of Coast Artillery, and after a short tour at Fort Monroe, Virginia, was posted to the Philippines. While stationed at Fort Mills, Corregidor, he volunteered for service with the Aviation Section of the Signal Corps, and in March 1913 began flight training at Fort McKinley.

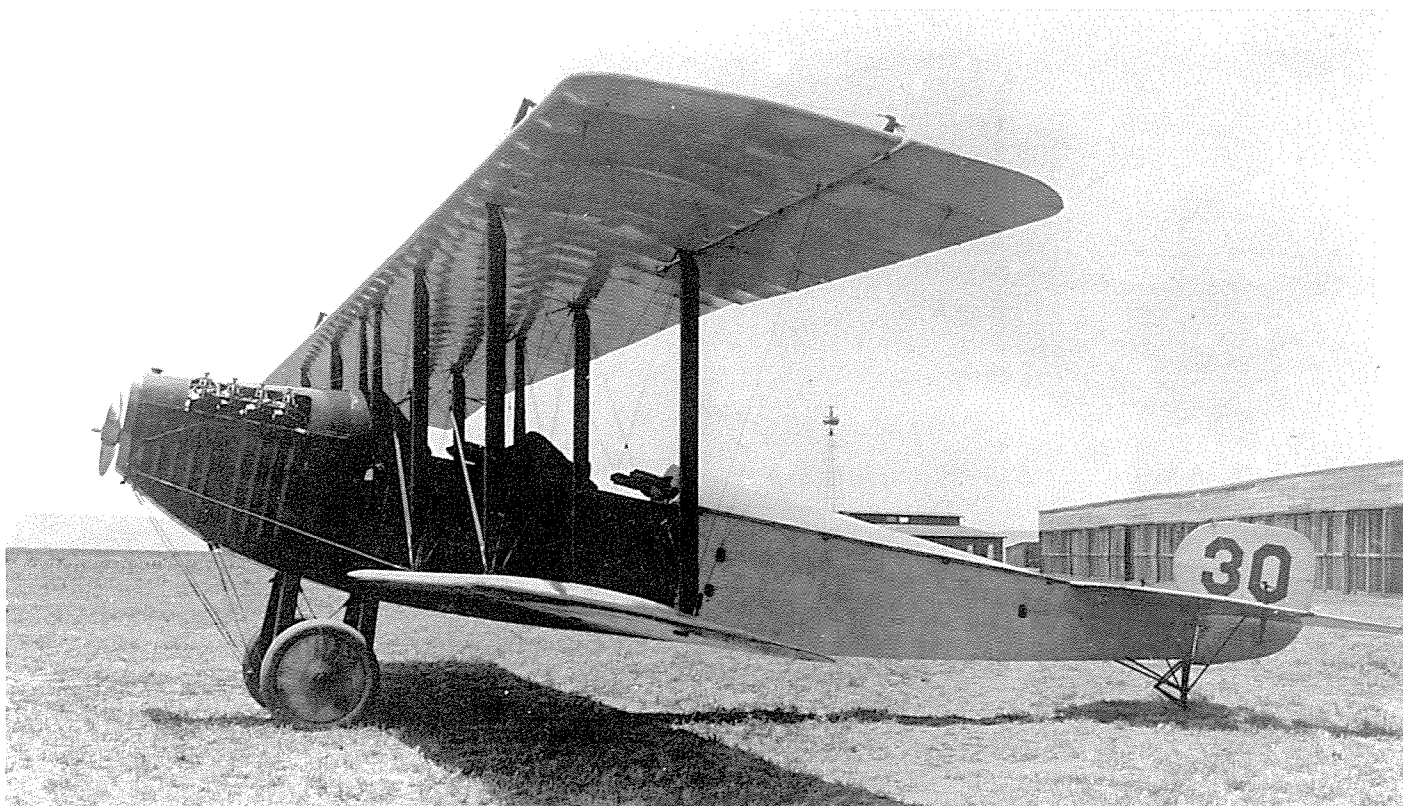
That month the Signal Corps Philippine Aviation School started its second year of operation after being shut down during the rainy season. Its flight instructor was First Lieutenant Frank P. Lahm, on detached temporary duty from the 7th U.S. Cavalry. His students were Dargue and two other second lieutenants, Carleton P. Chapman and C. Perry Rich. Six Signal Corps enlisted men performed the duties of aviation riggers and mechanics. The sole training aircraft was Signal Corps No. 7, a Wright Model B, which had been used during the 1912 flying season.

The Model B was a 1910 design two-place, twin pusher-propeller machine weighing 1,250 pounds. Its elevator was positioned to the rear, at the end of a spruce truss boom which also supported the vertical stabilizer. This was a change from the earlier Wright models, in which these surfaces had been placed forward of the pilots. Its length and wingspan were 31 and 39 feet, respectively. It was powered by a four-cylinder water-cooled engine of 30 horsepower, and had a cruising speed of 40 mph, with a top speed of 46 mph.

Dargue was an apt student who immediately took to flying, and soloed on 14 April. In May the school received a Wright Model C, a somewhat faster and higher performance version of the B. Dargue transitioned successfully to this advanced machine, and the Army flight training curriculum being somewhat abbreviated by today's standards, completed instruction and received FAI Pilot Certificate No. 242 and the ratings of Military Aviator and Expert Pilot on 13 July 1913.

Bert Dargue thus became one of a small band of early Army aviators to earn the first distinctive gold badge of their profession, the design of which had recently been adapted from a marksmanship award. It consisted of a flying eagle grasping the Signal Corps flags, suspended beneath a bar inscribed *Military Aviator*. Dargue wore it proudly throughout his flying career.

The duties of a Signal Corps Aviation Pilot in the pre-WWI Philippines were many and varied. They included reconnaissance flights to observe troop movements during maneuvers, and to search out areas which could be used as airfields and



troop encampments. Coastal patrols were flown, and orientation flights were made carrying various high-ranking passengers, who were introduced to the world of aviation while perched precariously on the Wright's wicker seat in a blistering 40-mph air blast.

Dargue flew many of these missions in the same Wright B which he had soloed. When the rainy season returned, the Fort McKinley airfield soon became flooded. Signal Corps No. 7 was then fitted with pontoons, and operations were moved to a temporary hangar on the beach of Manila Bay.

On 28 August 1913, Dargue was flying No. 7 on an over-water reconnaissance mission when engine failure forced him down in Manila Bay just offshore of the Army and Navy Club. Fortuitously, he was dressed for the occasion in a bathing suit, and was able to swim to the beach while towing the aircraft behind him. He telephoned the base from the club, and a rowboat and its crew were dispatched to bring the machine in. During the voyage back to the hangar, however, a tropical squall arose and blew the 'B' into the rocks, destroying it.

Soon after, a Burgess-Wright Coastal Defense Hydroplane, SC No. 17, arrived in the islands, and was based on Corregidor. It was assigned to Dargue and another pilot, Sergeant Vernon Burge, who in August 1912 had become the Army's first enlisted aviator.

The Signal Corps policy at that time did not favor enlisted men receiving flight training, but Burge, already an expert aviation mechanic, persevered in his efforts to fly. Because of a shortage of qualified officer students, he finally had his entry to the Philippine Aviation School approved by the Signal Officer in Manila. He began flight instruction under Lieutenant Lahm, and by the time a policy directive arrived from the Chief Signal Officer in Washington prohibiting

enrollment of enlisted personnel in the aviation school, Burge had completed training and received his FAI Pilot Certificate!

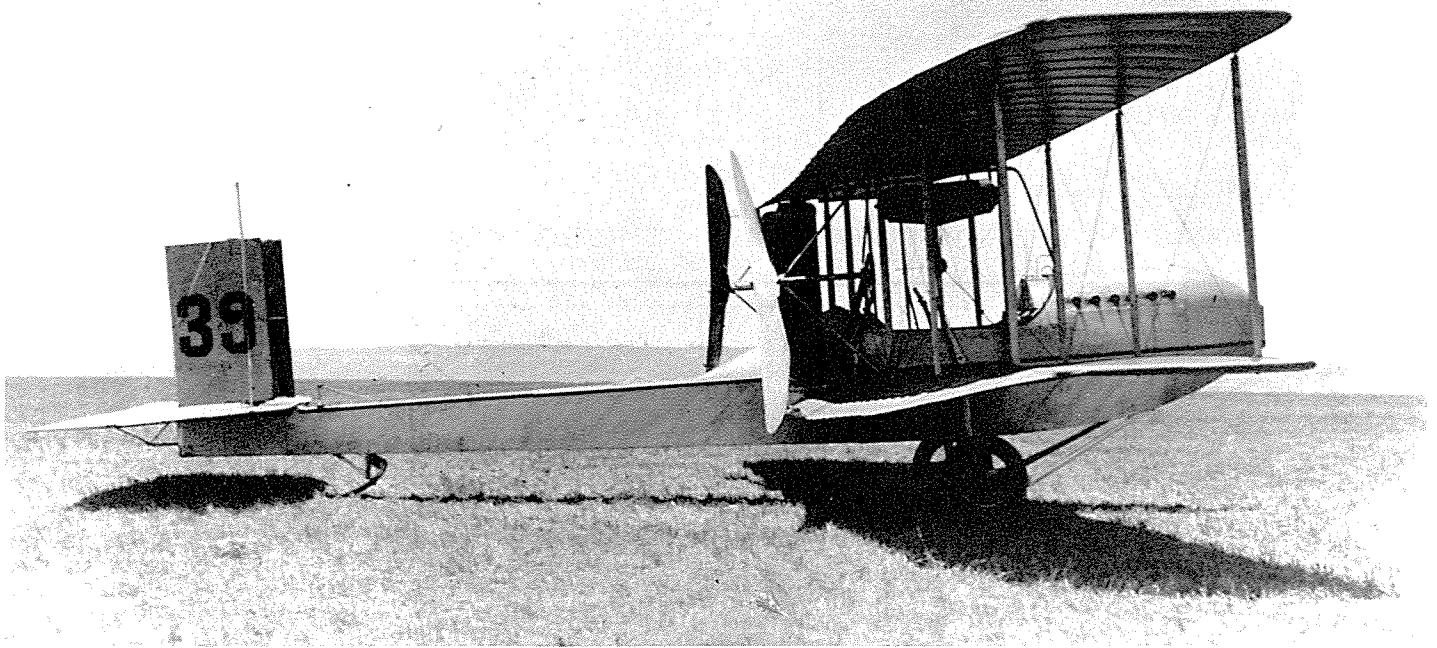
Dargue and Burge were assigned missions which included sea reconnaissance, spotting targets over the horizon for the big Coast Artillery guns at Fort Mills, and observing the results of artillery fire on shore targets near Mariveles.

The Burgess was a biplane equipped with twin pusher propellers, which were chain-driven by a single engine amidships. Though of relatively recent manufacture, it was not a first-rate machine. It was considerably underpowered, and possessed only marginally safe flight characteristics. Many hours of maintenance were required in order to log even a half hour of air time.

Maintenance personnel and facilities were in short supply on Corregidor, and the two pilots spent many nights, sometimes working around the clock, helping the mechanics to ready the machine for its next flight. Dargue even rented a sewing machine with his own funds when the one provided by the Army proved unsuitable for stitching the linen cover of the aircraft.

Lieutenant Dargue, though normally of a somewhat unassuming nature, never hesitated to speak his mind when he felt strongly about a subject. He later wrote a letter detailing the shortcomings of the Burgess, and sent it off to Signal Corps Headquarters. In it he listed the many defects of the aircraft, noted that it had been rejected as unsuitable for training in the States, and charged that it was sent off to the Philippines because "it is Signal Corps policy to ship all the junk over to the Islands because out there they won't know the difference."

Despite their many and considerable problems in keeping the Burgess airworthy, the two aviators managed to fly a respectable number of missions, and on 30 January 1914 made



the first aerial photographs of Corregidor Island from an altitude of 2,000 feet.

Dargue had noted the difficulty of communication between air and ground during target spotting flights, and in collaboration with Coast Artillery personnel, arranged a signaling system of Very pistol flares on small parachutes. These indicated to the gun crews where the rounds were falling, so that necessary changes in elevation and azimuth could be made.

This Very pistol method of communication proved not entirely satisfactory, so Dargue, ever resourceful and inventive, set to work again. With another officer, Lieutenant J.O. Mauborgne, later Chief of the Signal Corps, he designed and built a small transmitter/receiver radio set and installed it in the Burgess.

Two-way radios had been tried before in Army aircraft, but engine noise, ignition interference, and vibration made them ineffective. One by one, the two resourceful officers overcame these obstacles to communication, and after successful in-flight reception was obtained, turned their attention to the transmitter. It was of simple design, consisting of a spark coil, storage battery, glass-plate condenser, small inductance coil, and an open gap. A 200-foot wire antenna, weighted with large washers, was installed on a reel and trailed out beneath the aircraft.

After many hours of tests and experiments, success finally came on 16 December 1914. On that date, Dargue and Mauborgne became the first Army airmen to transmit and receive radio messages while in flight. Dargue was awarded a letter of commendation for this feat, and the Signal Corps establishment began to take an interest in the career of this enterprising young officer.

Further experiments proved the value and practicality of

air/ground communications for military purposes, but the tests were cut short on 12 January 1915. Dargue was flying the Burgess over San Jose Bay, Corregidor, when its marginal flight characteristics caused it to stall during a steep turn made to escape a whirlwind. The machine struck the water tail first and was lost, but Dargue and his enlisted passenger escaped unhurt.

Signal Corps No. 17 had been the last operational aircraft in the Philippines, the others having been destroyed in crashes. Since Dargue, as an aviator, was no longer needed in the command, he was transferred to the Signal Corps Aviation School at North Island, San Diego.

At this point in his career, First Lieutenant Dargue had made 189 flights totaling 73 hours 31 minutes. This is not a great deal of air time by modern standards after nearly two years of flying duty, but was not at all meager in those early days of aviation, considering the types of aircraft flown and the many difficulties encountered. It should also be kept in mind that these were for the most part routine military air missions, which were being accomplished only a few years after the Wright brothers' first flight at Kittyhawk.

SCAS NORTH ISLAND HAD BEEN IN OPERATION SINCE 1912, and when Dargue reported there for aircraft testing and instructor duty in March of 1915, it was the chief Army flight test and training facility. Its expansion over the preceding two years had been quite rapid, and a guide containing advice for prospective flight students and school operating regulations had only recently been published. Some of these were:

"You are not wanted in the Aviation Section unless you are a highly efficient officer."

"Before you come into aviation you should prepare your-

Signal Corps No. 39, "The Tin Cow," test flown and rejected for service by Dargue at North Island in 1915. (NASM)

Dargue in front of Curtiss "J" at North Island, holding early "hardhat" flying helmet. (NASM)

self to expect a lot of work in the daytime and plenty of study at night."

"Do not enter the Aviation Section lured by hopes of increased pay. Expenses are high, and there is no use trying to conceal this fact."

"If you expect an easy time, don't take up aviation."

"If you hate work, don't take up aviation."

"If you are the sort of person who likes to keep his hands clean, don't take up aviation."

"If you expect to be married soon or are in love, don't take up aviation."

"If you are a bluffer, don't take up aviation, you cannot expect to bluff the atmosphere."

School regulations included the following items:

"Officers will be required to devote a minimum of six hours per week to professional study or reading."

"Horses will be tied on the picket line provided for private mounts and not to trees, fences, water pipes or buildings."

"Dogs without collars and muzzles will be shot."

A typical day's operation on North Island during this period started with reveille one-half hour before daylight. This allowed personnel to be at the airfield a little before dawn. The early Wright pusher training machines had only recently been replaced with more modern aircraft, mostly Curtiss "J" and Martin "M" tractor biplanes. The airplanes were rolled out of the hangars, and each was inspected by its mechanic, and again by the instructor assigned to it. The instructor then took the machine into the air for a short flight to assure himself that it was in good working order.

A student officer then boarded the aircraft and received dual flight instruction, or it might be flown solo by a more advanced trainee. Training flight duration averaged around 20 minutes. At 10 or 11 A.M., when wind speed and air temperature had risen enough to curtail flying activities, the machines were returned to their hangars and inspected.

Repair work and routine maintenance were done in the afternoon, accomplished by the riggers and mechanics, who were assisted by the student officers. This hands-on maintenance experience allowed the aviation trainees to become familiar with the basics of aircraft construction and repair, a highly necessary aptitude for pilots in that dawn-age of aviation.

One of Dargue's first assignments was the flight test and evaluation of suitability for student instruction of SC No. 39, a Wright Model F, nicknamed, with little affection, "The Tin Cow." Dargue made a total of seven flights in this aircraft, and his test report states that it was "a lumberous mass of rattling material" in the air and uncontrollable on the ground. He felt that further flights would be dangerous, and on his recommendation and that of Oscar Brindley, a civilian instructor pilot, it was stricken from the Signal Corps

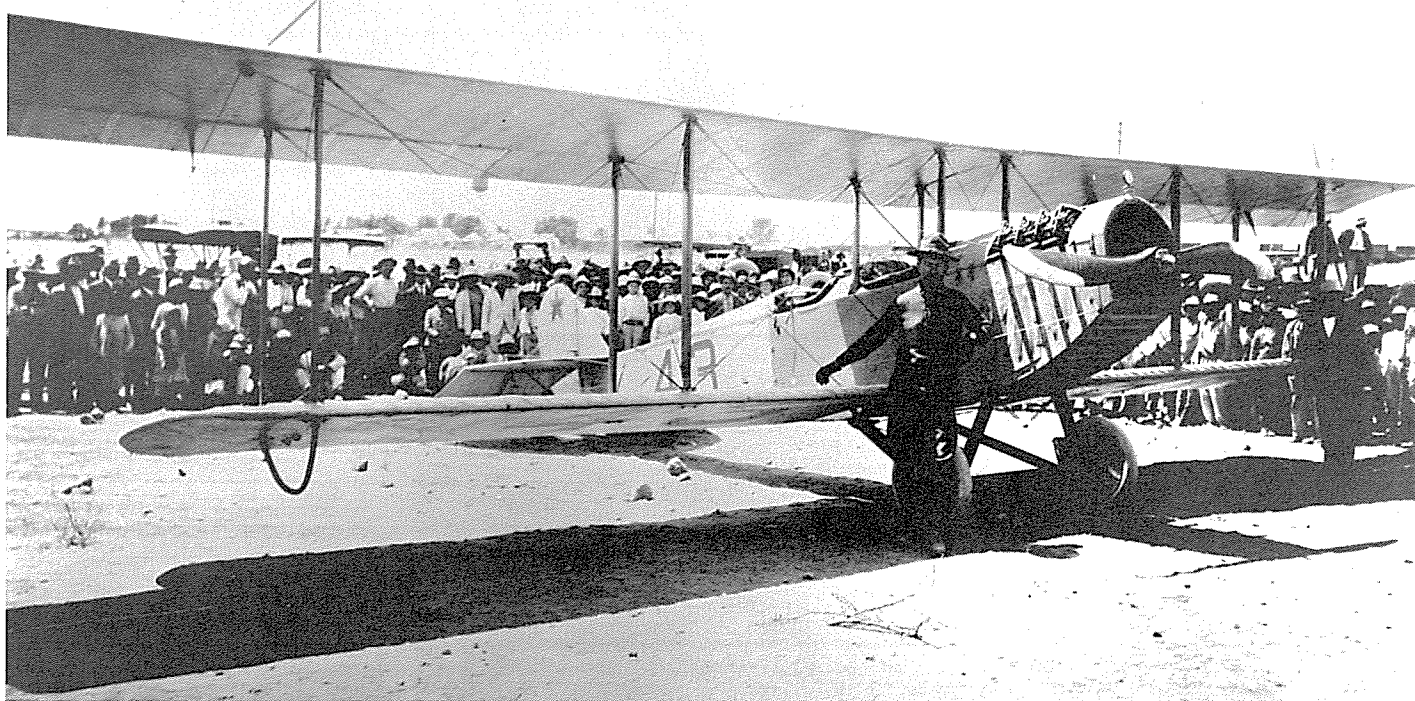


inventory.

Lieutenant Dargue, with his background in education, was also a talented flight instructor. This ability was reflected in the excellent performance of his students when the time came to qualify for their FAI licenses and Military Aviator rating. His dedication and commitment to turning out superior, well-trained pilots was noted by the school staff, and in October 1915 he assumed command of the Training Department. He remained at this post until his transfer in December to the 1st Aero Squadron at San Antonio, Texas.

The primary mission of the 1st was surveillance of the U.S.-Mexico border for smugglers, armed incursions, and other violations. The area had been patrolled by air since the spring of 1915, when several Curtiss JN-2 *Jenny* aircraft were assigned reconnaissance duties, flying out of Brownsville, Texas.

The JN-2s had proven not equal to the grueling task of border surveillance, or any other duties involving aerial flight. Following complaints by the pilots that their handling qualities were decidedly treacherous in nose-high attitudes, the machines were tested for stability at high angles of attack, and failed miserably. Changes were made which ultimately converted the airplanes to JN-3s, but the marginally increased performance obtained by these modifications was almost



wholly negated by an increase of weight, and was still not sufficient to assure safe operation under the demanding conditions of border patrol.

IN MARCH OF 1916, THE MEXICAN BANDIT-WARLORD Pancho Villa, who aspired to the leadership of his war-torn country, became incensed by U.S. support for his rival to the presidency, General Carranza. On the 9th of that month he vengefully staged a raid across the border, mounting a well-planned cavalry attack on the unsuspecting village of Columbus, New Mexico.

When the smoke cleared, and the last of Villa's banditos had ridden out of town in a cloud of dust, 17 American citizens lay dead, including eight soldiers of the 13th Cavalry at Fort Furlong. Scores more lay wounded.

The American nation was outraged at this wanton act of aggression, and clamored for quick revenge. President Wilson, responding immediately to public demand, ordered Brigadier General John J. "Black Jack" Pershing to assemble a force of 12,000 and pursue Villa into Mexico to mete out punishment.

The 1st Aero Squadron was detailed to Pershing's command to furnish air support and reconnaissance for the expedition. The unit arrived in Columbus on 15 March, and immediately began flying observation and troop surveillance missions, and carrying dispatches between commands. This was the first instance of U.S. aircraft being used in support of an armed military offensive against an enemy force.

The high, hot desert atmosphere limited the already marginal performance of the JN-3s even further, and the violent spring weather of northern Mexico proved to be a more dangerous adversary than all of Villa's forces combined. Rain, hail and snow beat down upon the aviators in their

unprotected open cockpits, and due to the inefficiency and neglect of their needs by the Army supply system, they were not furnished suitable clothing and equipment to resist the elements, and much suffering resulted. Gusty winds and thunderstorms were common occurrences. Extremely turbulent gusts caused one pilot to be thrown around the cockpit so violently that his nose was broken.

The machines had so little lifting capacity that emergency provisions and clothing could not be carried. Many missions had to be terminated because the JN-3s lacked sufficient performance to negotiate a range of hills under the high density altitude flight conditions.

Forced landings were frequent. On one photo-reconnaissance mission west of Ciudad Chihuahua, Dargue and his observer, Captain R.E. Willis, were forced down in the hills due to engine failure. Dargue was unhurt, but Willis was trapped under the overturned airplane and badly bruised. They burned the *Jenny*, and hiked 65 miles through the desert and across several mountain ranges without food or water to reach the nearest friendly forces.

In spite of these extremely harrowing conditions, Dargue managed to set a flight distance record on 15 April when he accomplished a long-range reconnaissance mission of 415 miles, with two stops.

Perhaps Dargue's closest brush with death in the Mexican campaign came, ironically, on the ground. Accompanied by the Squadron CO, Captain Benjamin Foulois, later Chief of the Air Corps, he took off from San Geronimo with dispatches from General Pershing to the American Consul at Chihuahua City. Given the uncertain reliability of the JN-3s, the general had wisely sent a second aircraft, piloted by Lieutenant J.E. Carberry, with Captain T.F. Dodd as observer, which carried a duplicate set of documents.

Dargue stands by JN-3 surrounded by hostile crowd in photo taken by Mexican photographer near Chihuahua City. The distraction of the photo session kept the mob temporarily at bay, and Dargue prolonged it as long as possible until help arrived. (NASM)

After landing at their destination, Foulois left on foot to deliver the dispatches. Dargue was instructed to take off and join Carberry, who had already landed north of town. Just as it became airborne, the *Jenny* came under fire from four mounted Rural Police. Captain Foulois ran back and managed to stop the shooting before any damage was done, but was promptly put under arrest by the Rurales, and taken to the Chihuahua city jail. He thus had the dubious distinction of becoming the first American aviator to become a prisoner of war!

Although several bullet holes had appeared in its wings, the *Jenny* was unaffected by hostile fire. Dargue continued the flight, and landed alongside Carberry's airplane. Dodd had already left with his set of duplicate dispatches. The arrival of the flying machines caused a large crowd to gather, composed of supposedly friendly Carranzinista soldiers and officers, and a ragtag horde of civilians.

For reasons unknown, the mob quickly turned hostile to the Americans. They hurled insults, curses, and rocks at the pilots, and burned cigarette holes in the aircraft fabric. They then slashed the linen cover with knives, and began removing bolts and nuts from various fittings. The two aviators felt that their only chance of surviving this onslaught was to immediately take off and fly to the American Smelter and Refining Company, located six miles away.

The officers held off the crowd with pistols while they propped each other's engines. Carberry was able to get away without difficulty, but Dargue had only been airborne for a moment when the top section of the aft fuselage, which had been loosened by the mob, flew off and damaged the horizontal stabilizer, necessitating an immediate landing.

The same mob, reinforced by additional hostile natives, appeared again on the scene, and again surrounded the aircraft. Things were looking extremely dark for young Lieutenant Dargue when, to his surprise and relief, a photographer arrived from town and began taking pictures. Dargue, ever resourceful, saw that this activity diverted the rabble from their mission of destruction, and began posing in various amusing positions, so that they were both entertained and distracted by his antics.

Meanwhile, Foulois had been released from jail by the U.S. Consul. Learning of Dargue's plight, they informed the military governor, who dispatched a troop of cavalry to the scene which scattered the mob. Dargue was then able to make repairs to his machine using a wagon wheel rim he found nearby, and took off with Foulois for the safety of the American Smelter yard. Much to his surprise, he later received copies of the photos which had quite possibly saved his life.

When the Punitive Expedition into Mexico became a part of history, Dargue returned to the Aviation School at North Island, and resumed command of the Training Department.

In 1917, night flying was something to be avoided, and

although a few pilots had been caught out after nightfall and forced to land in the dark, Army flights were not scheduled after sundown. Dargue, always eager to expand the boundaries of the air operations envelope, felt that there was no reason why after-dark flights should not become routine for Army airmen.

In July of that year, Dargue and an enlisted pilot, Sergeant Christy C. Cole, made the first planned Army night flight and landing, taking off from and returning to North Island in a Curtiss "J" model trainer. Dargue made the first approach, which ended in a perfect three-point landing, and after several more circuits and touchdowns with the same result, turned the controls over to Cole. The sergeant's landing, according to his account in *U.S. Air Services* for August 1942 was also perfect, except "it was made about fifteen feet above the ground." The ensuing impact wiped the landing gear from the machine, and the flight ended with the *Jenny* sliding to a stop on its belly.

Cole's account continues: "I expected to hear all about how many kinds of a moron I was from Lieutenant Dargue, but instead he smiled one of those rare and infectious smiles of his, and remarked that 'next time we go out to make night flights, I'll have the ground jacked up to the proper place, and try to save as many landing gears as possible!'"

THE WAR IN EUROPE HAD BEEN RAGING SINCE 1914, but the U.S. was able to stay out of the conflict until April of 1917. At that time, President Wilson convinced the Congress that America's interests lay in joining the conflict on the side of the Allied Powers, and war with Germany was declared, "to make the world safe for democracy." Mobilization and expansion of the nation's armed forces were begun at once, at a pace unprecedented in previous conflicts.

The Aviation Section of the Signal Corps was no exception to this rapid buildup, and in September 1917, Dargue, now a temporary major, was ordered to Fort Sill, Oklahoma, to help establish a school for aerial observers.

The mission of the school was to train Army personnel for duty as second crewmen on bombing, reconnaissance, and artillery target spotting flights. Gunnery, bombing, radio operation, photography, and elements of artillery round trajectory were taught, and training flights from the Fort Sill airfield gave the fledgling observers experience in the air before graduating and boarding ship for France to fly missions over the Western Front.

Dargue, who was expert in all the subjects in the training syllabus, became School Commander in March of 1918. In August of that year he was detached and ordered to Europe as a roving inspector and observer of overseas aviation training and combat units. His mission was to report to the Chief of the Air Service with any recommendations for changes in the instructional curriculum or operational tactics. That same month, he was promoted to Lieutenant Colonel.

During his tour of the war zone, he inspected the main Air Service Training Center at Issoudon, France, and other smaller training facilities. He visited American air combat

units along the Western Front, and made many flights over the enemy lines in a variety of aircraft. He also toured American and British air training fields in England. He returned to the U.S. two weeks before the 11 November armistice.

For his outstanding service in Europe, Dargue received a letter of commendation, and was recommended for the Distinguished Service Medal. The citation was lost in the maze of Army paperwork, however, and he was never awarded this well-deserved decoration.

In 1919, after a short tour as Assistant Chief of Air Service Training, Dargue entered the Air Service Engineering School at McCook Field. He began the course with a temporary rank of Lieutenant Colonel, was reduced to his former rank of captain, and then promoted to Major on 1 July 1920. These rapid changes in rank were the result of reorganization of the Army Air Service from a wartime high of nearly 200,000 men to its normal peacetime complement of around 10,000.

In 1921, Major General Mason Patrick was selected by the Secretary of War to be Chief of the Air Service. General Patrick, formerly of the Corps of Engineers, had proven leadership abilities, but lacked aviation experience. The General strongly felt that as Air Service Chief he should be a rated pilot, and although past 60, was determined to take flight training. After closely examining the records of suitable Air Service officers, he chose Bert Dargue to be his personal flight instructor and tutor on aviation matters in general.

A condition of his flight instruction which Patrick insisted upon was that he be put through the same training program as the most junior flying cadet, with no consideration being given to either his rank or age!

Dargue's expert instruction coupled with the General's motivation and natural flying ability, despite his relatively advanced years, led to him receiving his Army pilot's wings on 26 June 1923. He passed his final solo flight check with skill and confidence. It was observed and graded from the ground by a board of officer pilots, and included loops, Immelman turns, spins, and an inverted stall!

This training assignment was coveted, for obvious reasons, by many of Dargue's contemporaries, and his selection by Patrick reflected the General's trust and confidence in him. It also did the Major's career aspirations no harm, and in fact, his friendship with Patrick was soon to be of benefit to him.

Since his days in the Philippines, Dargue had been a strong, and at times outspoken, proponent of an independent air arm. His mild manner and self-effacing personality had never stopped him from making his position perfectly clear on this and all other subjects about which he held strong convictions. His many statements in support of Air Service independence, however, unlike those of certain other officers, did not overstep the bounds of military order and discipline.

In the early '20s, this vigorous support for the upgrading and independence of the Air Service was shared by a number of its officers, including Hap Arnold and Billy Mitchell. Mitchell's fierce verbal attacks on the government establishment, however, especially the Secretary of the Navy, for not immediately implementing an independent air arm, ulti-



Major Dargue in Class A uniform, circa 1923. Note Military Aviator badge beneath ribbons. (NASM)

mately led to his court-martial.

Dargue and Arnold, though no less dedicated to the cause of air arm independence, knew the value of discretion and had come to a view that in the long run more could be accomplished by working within the military chain of command, rather than mounting vicious attacks on the system. They attempted to restrain Mitchell before his Army career was ruined, but without success.

For a time during this period, the Army Air Service felt that there was a real chance for the establishment of an independent air arm. It was to have consisted of a Department of Aeronautics which would be equal in stature with the Army and Navy Departments in a consolidated Department of Defense. Its command and operational structure would have been patterned upon that of the British Royal Air Force.

Opposition from within the other Army services and the Navy proved too strong to overcome, however, and the Air Service hopes were dashed. It would be over 20 years later, in 1947, before the United States Air Force was to become a reality. A bone was thrown to the proponents of independence, however, with a redesignation of the Air Service to the upgraded status of Army Air Corps.

After the Morrow Board rejected Billy Mitchell's impassioned plea for a separate air arm, the Air Service complained to Congress of unfairness in the process, and the House Military Affairs Committee conducted an investigation. For Dargue, this investigation had unfortunate results, as one of the committee decisions was that both he and Arnold receive reprimands for "showing excessive zeal in the cause of air-

U. S. ARMY PAN-AMERICAN FLIGHT



Pan-American Flight route map.

(NASM)

power," even though their support for Air Service independence had never overstepped the bounds of Army regulations and discipline. Arnold was transferred to Fort Riley, Kansas, but Dargue was allowed to stay in Washington, and remained attached to the Office of the Chief of the Air Corps for several more years.

As subsequent events would bear out, this Congressional reprimand had no lasting detrimental effect upon Dargue's career, probably due at least in part to his friendship and close ties with General Patrick.

BY 1926, THE UNITED STATES WAS CONTINUING ITS slow emergence as a world air power. The Round-The-World Flight of 1924 had begun the release of the Army Air Service from its operational cocoon of drastic postwar budget cuts. The Executive, State, and War Departments now felt that a goodwill flight to the nations of Central and South America would further enhance the image of the recently designated Army Air Corps. It would also provide diplomatic rapprochement with certain Latin governments who remained somewhat testy over recent gringo military intervention in several of the banana republics.

The projected distance of this flight was approximately 21,000 miles, covering the North and South American continents from 40 degrees north latitude to 40 degrees south, with visits slated to 25 Latin American nations. The route would be from San Antonio, Texas, down the east coast of Mexico, through Central America, and then down the west coast of South America, with a turn east at Valdivia, Chile.

After visiting Buenos Aires, the flight would continue on up the east coast of South America, through the Caribbean, and on to its conclusion at Washington, D.C. No efforts to set speed records would be made, as the success of the mission was to be measured solely by the amount of diplomatic goodwill generated by the airmen. Their primary mission would be to visit each country on the route and deliver a personal message of friendship and cordiality from President Coolidge to its leader.

After a consultation among Air Corps staff personnel and State Department representatives, Bert Dargue was chosen to command the Army Pan-American Flight. General Patrick was no doubt instrumental in his selection for this coveted assignment. Dargue in turn then picked the other nine pilots who were to accompany him on the trip, chosen from among the best and brightest of Air Corps flying officers. Two other aviators of the Pan American Flight, Ennis C. Whitehead and Ira C. Eaker, later rose to the rank of General, and served during WWII.

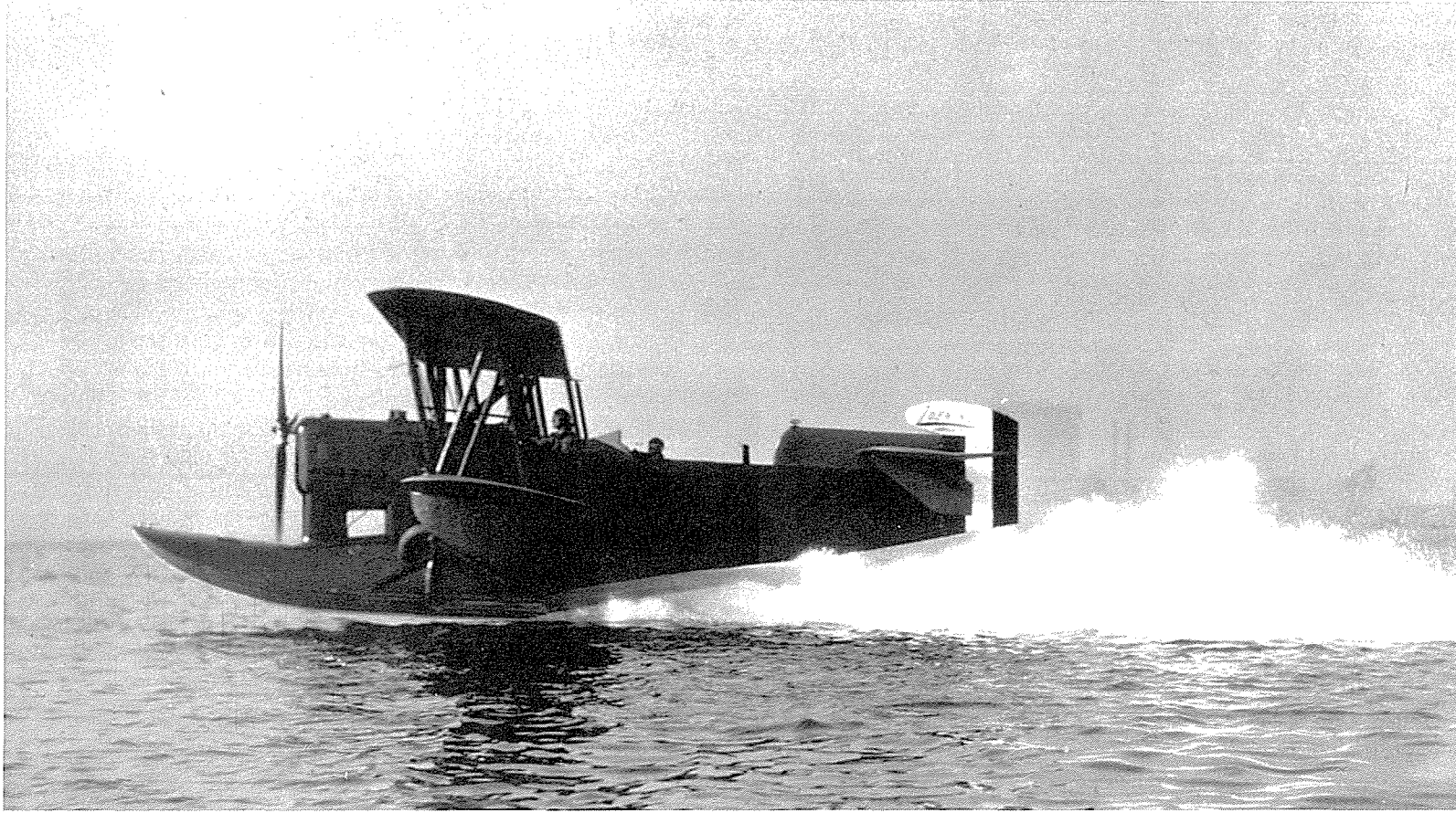
The 1924 flight of the Douglas World Cruisers had proven the practicality of long-distance missions by Army aircraft. Their journey time had been lengthened, however, by the necessity of converting each aircraft from wheels to floats, and vice versa, as the occasion arose to rise from and alight on land or sea. Since amphibian aircraft would obviate the necessity for this time-consuming operation, the Air Corps planners felt that their use would make for a speedier and more efficient journey, as well as simplify the mission logistics.

The Loening OA-1A *Duck*, which had recently been added to the Air Corps inventory, was chosen as the machine which would carry the flyers to South America and back. Dargue's acquaintance with its designer, Grover Loening, dated back to their North Island days, when Loening had been the civilian in charge of aircraft engineering and design. Dargue was familiar with and respected Loening's reputation for quality work. His confidence was well-placed, as verified by the outstanding performance of the airplanes throughout the demanding mission.

The OA-1A was a two-place tandem, single-float amphibian biplane, powered by a 400-horsepower inverted *Liberty* engine. With a crew of two, flight gear, sea equipment and spares, and fully tanked with 250 gallons of fuel, the Loening grossed out at 5,800 pounds. It was able to cruise at an air-speed of 105 mph over a range of 1,000 miles. Its service ceiling when fully loaded was not much more than 11,000 feet.

Five aircraft, each manned by two pilots, were dispatched on the flight. In the 1924 expedition, the majority of the second crew members had been aviation mechanics. On the Pan-American Flight, the advantage of having expert aircraft maintenance immediately available was forsaken for the greater advantage of having two qualified pilots to spell each other at the controls during long cross-country legs and adverse weather conditions. Maintenance personnel and spares were stationed at intervals along the proposed flight path.

Each airplane was named for an American city chosen by its crew. They were the *New York*, flown by Dargue and First



Lieutenant E.C. Whitehead, the *Detroit*, piloted by Captain C.F. Woolsey and First Lieutenant J.W. Benton, the *St. Louis*, carrying First Lieutenants B.S. Thompson and L.D. Weddington, the *San Antonio*, flown by Captain A.B. McDaniel and First Lieutenant C.M. Robinson, and the *San Francisco*, with Captain I.C. Eaker and First Lieutenant M.S. Fairchild.

The five Loenings left Kelly Field, San Antonio, on 21 December 1926. Weather was a problem from the beginning. Fog and rain hampered navigation and slowed progress as the flight made its way south. High winds and heavy seas made taxiing and beaching difficult while the machines were in seaplane configuration. The flight pressed on, regardless of hazards and misfortune, with the skill and dedication of the airmen overcoming the heavy odds against their success.

The aircraft themselves performed in an outstanding manner, with a minimum of serious problems. Several engines were replaced at designated maintenance points, but few major repairs were required. In the traverse of open seas and tropical jungles, and the crossing of the Andes and other high mountain ranges, the Loenings proved highly suitable for their long-range mission.

At each stop, Dargue presented a personal message of friendship from President Coolidge to the leader of that country, who in turn sent a similar profession of goodwill to be personally delivered back to the President by Dargue.

The flight was nearing its halfway point on 26 February 1927, when a tragic midair collision occurred which took the lives of Woolsey and Benton, pilots of the *Detroit*, when their machine struck the *New York*, flown by Dargue and Whitehead. The cause of the accident was never officially established, but no doubt fatigue and lack of attentiveness engendered in the crews by the long, stressful flight was a contribu-

tory factor.

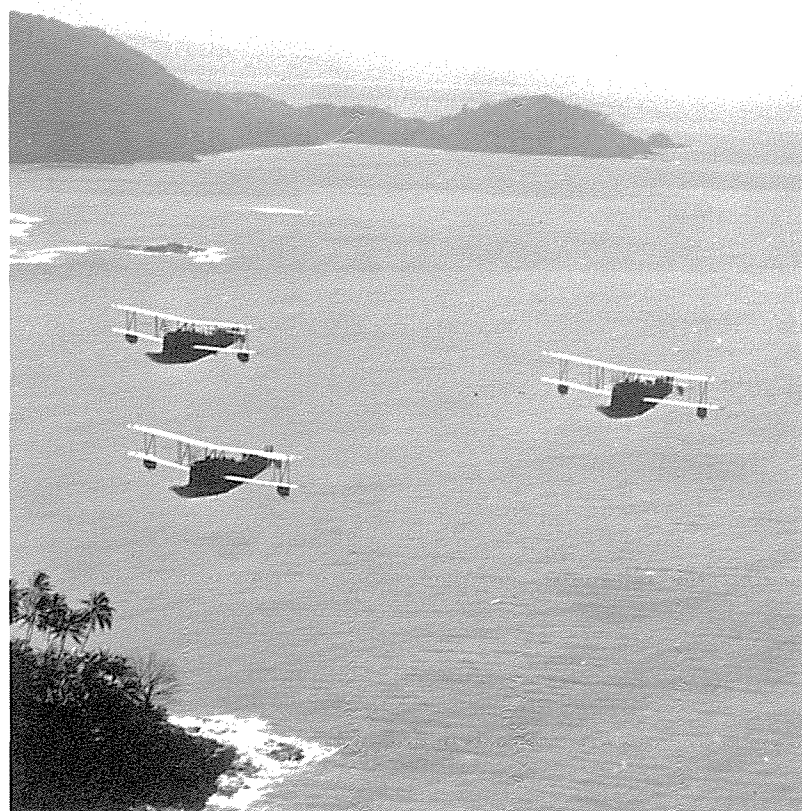
On the approach to Palomar Airfield, Buenos Aires, in close formation at 1,400 feet, Dargue, in the lead, gave the signal to break for landing. At this point, Woolsey began a descent, and for some reason turned into the *New York* instead of away from it, causing the nose of the *Detroit* to strike the left wing of Dargue's aircraft.

The two airplanes locked together and began to fall in a violent spin. Dargue's account of his close brush with death follows:

"I unbuckled my safety belt and was immediately thrown clear of the cockpit. My ripcord handle must have caught on some part of the wing or stabilizer, because my parachute opened just as I was leaving the plane, and I have no recollection of pulling it. As the chute opened, it became entangled in the wreckage, and at the same time I felt a violent thud on my left side as some part of the plane struck me.

"I was being carried rapidly toward the ground, and distinctly recall thinking that this was the end. It seemed impossible to escape, but suddenly a giant hand held me aloft, and I looked up to see my chute open, but ripped from skirt to crown, and with two large holes the size of an office desktop in the canopy. Several shroud lines were cut, and dangled around me. Pieces of wreckage filled the air, and I caught a glimpse of another chute far above me. I watched both airplanes crash and one burst into flames, then I struck the ground violently. Lieutenant Whitehead landed a couple of hundred yards away. I could not have been very high when my parachute broke away from the wreckage and saved my life, as it seemed like only a couple of seconds between its opening and my landing."

The airmen of the Pan-American Flight were saddened by the loss of their two comrades, but remained undeterred by



Loening OA-1A of Pan-American Flight "On the Step."

Major Dargue looks on as Lieutenant Whitehead points the way south atop *New York*, flagship of the Army Pan-American Flight. (NASM)

Emblem of Army Air Corps Pan-American Flight, 1926-1927.

Detroit, San Francisco, and St. Louis passing Porto Bello, Panama.

Lieutenant Whitehead (left) and Major Dargue (right) with *New York*, wearing the parachutes which saved their lives over Buenos Aires.

the tragedy, and were determined to press on with the mission. A replacement Loening for Dargue and Whitehead, the *New York 2nd* was flown down from Panama and the journey north was continued.

On 23 April, the Pan-American Flight made U.S. landfall on the Florida coast. They were met at sea and escorted inland by a formation of Army aircraft led by Major General Patrick.



On 2 May, the flight arrived over Bolling Field, D.C. They circled for several minutes, then landed and taxied to the front of the reviewing stand. There they were greeted by President Coolidge, high-ranking military officers and War Department officials, and a bevy of U.S. and foreign diplomats.

Thus ended the epochal Army Pan-American Flight of 20,470 miles, the first air expedition to circumnavigate South America. It had been a grueling test of men and machines which clearly demonstrated the courage and fortitude of the flight personnel and the long-range aerial capabilities of the Army Air Corps.

During the aviators' absence from the country, Congress had authorized a new decoration, the Distinguished Flying Cross, as the nation's highest award for extraordinary achievement during aerial flight. Dargue and his fellow pilots of the Army Pan-American Flight became the first recipients of this prestigious award, which was presented to them by the President immediately on landing. The ceremony was made poignant by the posthumous award of the DFC to Woolsey and Benton. The members of the flight were also presented the Mackay Trophy, tendered annually for the most meritorious flight by an Army pilot or pilots during the year.

Following a short rest, the airmen of the Pan-American Flight embarked upon yet another mission, this one a goodwill tour around the USA, in which they visited 70 cities in 35 states, as well as Ottawa, Canada. Again, the men and machines of the flight performed impressively, and introduced the concept of long-range military airpower to a receptive U.S. citizenry.

Of the four aircraft which finished the Army Pan-American Flight, only the *San Francisco* survives, and is currently displayed at the United States Air Force Museum in Dayton, Ohio.



After completing the domestic air tour, Dargue devoted the waning years of the 1920s to his continuing military education. Already a distinguished graduate of the Army Command and General Staff College, he now enrolled in and was graduated from both the Army and Navy War Colleges. This cross-service training in strategic and tactical warfare was a valuable asset to his career, and he became one of the few active duty Army officers to hold diplomas from both institutions.

In his 1929 thesis for the Army War College, Dargue again made a strong case for an integrated Department of Defense presiding over a co-equal and operationally cooperating Army, Navy, and Air Force. It contained many proposals and ideas which would be implemented 18 years later when the Department of Defense and United States Air Force were established.

In light of the decisive role of airpower in winning the recent Persian Gulf War, it is interesting to note Dargue's prophetic views of 60 years before. In a 1930 magazine article, "A National Insurance Policy," he notes, "Now aircraft can carry the destruction of war to the very vitals of the land. And, after all, isn't that the quickest way to break the will of the enemy? The destruction of factories producing munitions of war, the disruption of lines of communication, the attack of mobilization and concentration areas—these are the vitals; these are what support armies in the field; war from the air is the way to reach them."

Dargue's view of the importance of strategic bombing, which had likely been reinforced by Billy Mitchell's air bombardment demonstration which had sunk the "unsinkable" battleship *Ostfreisland* in 1921, was in a distinct minority among his pursuit and attack-oriented fellow officers.

Army Air Corps bombardment aviation in the late '20s and

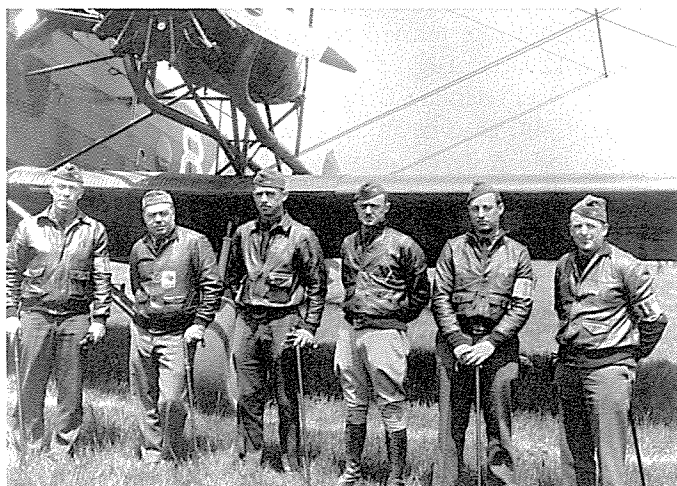
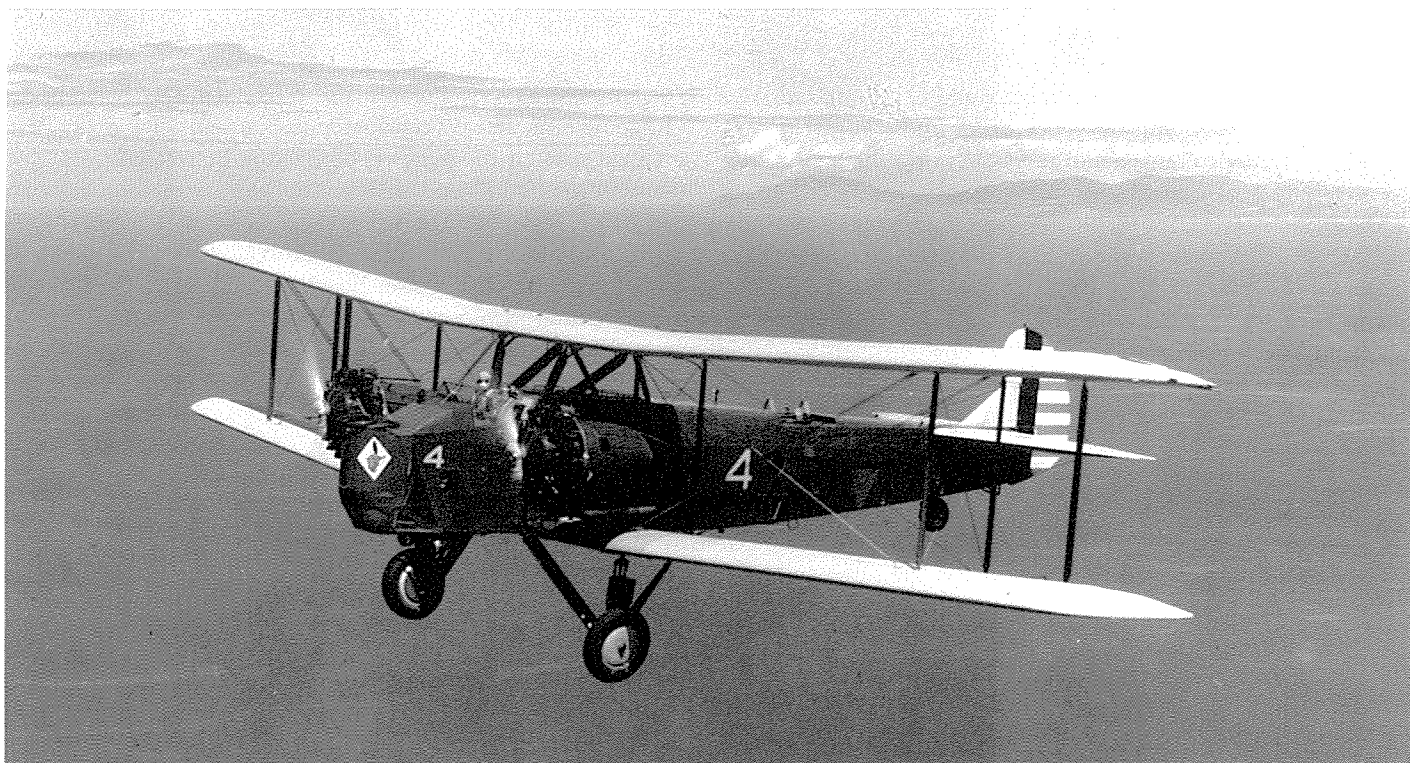
early '30s was inferior to that arm in most of the other world air forces. It was deemed by some segments of the United States military and legislative establishment to be an offensive weapon, and thus incompatible with the nation's stated foreign policy of nonaggression. The tightly limited amount of dollars which was budgeted for Army aviation was spent mainly on pursuit and attack aircraft, whose roles were clearly defensive. Production of long-range bombers lagged, and in 1930 there were less than 40 of these on active Army service.

In the fall of that year, Major Dargue was posted to the 2nd Bombardment Group at Langley Field, Virginia, as its Commanding Officer. The 2nd was composed of three squadrons flying Keystone B-3As, the first-line Army bomber of the period. The B-3A had a top speed of 110 mph, and could carry a bomb load of 2,000 pounds over a 750-mile range.

Serving as Operations Officer of the Group's 49th Bomb Squadron was Second Lieutenant Laurence S. Kuter, who later rose to the rank of General, and command of MATS, FEAF, PACAF, and NORAD. In an article in *Air Force* magazine written shortly before his death in 1979, he relates his involvement in an incident which highlights Bert Dargue's character and command presence:

"When Major Dargue flew as group commander, he chose the top rear gunner's cockpit in one of the Keystones as his command position. Here he had an unobstructed view of all three squadrons, could be seen by their leaders, and could control the group's maneuvers by hand signals.

"Dargue may have anticipated the time when thousands of bombers would rendezvous with swarms of fighters and converge to attack precision targets. As commander of the 2nd, he insisted that all flying elements operate on exact time schedules. Captain Eugene Eubank was then CO of the 49th, and I was the operations officer and second in command. Captain Eubank made it very clear to all squadron personnel



Surviving pilots of the Pan-American Flight with President Coolidge at Bolling Field, D.C., on 2 May 1927, after being awarded the nation's first Distinguished Flying Crosses, presented by the President. L to R: Lt. Robinson, Capt. McDaniel, Lt. Whitehead, Maj. Dargue, Capt. Eaker, Lt. Fairchild, Lt. Thompson, Lt. Weddington. Captain Woolsey and Lt. Benton received the decoration posthumously.

Keystone B-3A, circa 1930.

(NASM)

Officers of 2nd Bomb Group, Langley Field, Virginia, pose with Keystone B-3A, circa 1931. Major Dargue is on left.

(NASM)

that if any element of Major Dargue's group ever missed exact timing, or under any circumstances failed to meet precise group schedules, it had better not be an element of *his* squadron.

"One morning the group was scheduled for a formation exercise. Gene Eubank was away, and as acting squadron commander, I was called on for a quick decision about timing. The operation order specified 'Cockpits 0745 . . . Engine start 0750 . . . Chocks away 0759 . . . Taxi out 0800.' On this mission, the 49th was scheduled to lead the group, which Major Dargue was to command from the upper rear gunner's cockpit in my Keystone.

"At 0745, Dargue had not shown up, nor had he at 0750. On schedule, engines were started and magnetos checked. When my watch showed exactly 0759 I gave the hand signal for the wheel chocks to be pulled. I had concluded that something important had diverted Major Dargue, and at exactly 0800 I led the group out to takeoff position and swung the

formation into the wind.

"As we started our takeoff run, I caught sight of Major Dargue, in his winter flying suit, running out from the operations office toward the formation, his heavy parachute banging behind him as he ran. Remembering Captain Eubank's order that the 49th would *never* be the cause of group delay, I pushed the throttles wide open!

"We took off, leaving our very senior commander standing on the ground, sweating and puffing in his heavy flying suit with his parachute dragging behind him. He was not just a major. I was keenly aware that he was THE MAJOR, and that I was one of many expendable second lieutenants. The hour-and-a-half formation flight became less and less comfortable as the 0930 time for landing drew near, and with it the prospect of facing THE MAJOR who I had left stranded on the flight line!

"I shall never forget Major Dargue's words to me when we had taxied in and shut down the engines. 'Lieutenant Kuter, I am afraid I will have to conclude that you did the right thing. If I had been in your position I doubt that I would have had the courage to do what you did. That is all.' And that was all!"

Kuter also points out that Dargue's concern for the morale and welfare of personnel under his command was very much in evidence during his tour as CO of the 2nd Bombardment

Group. In the early '30s, unit morale and family welfare were not high on the list of concerns of most commanders. Dargue, himself married and the father of a son, felt differently, and was quite family-oriented. He organized many group-sponsored dances, picnics and other activities to take the place of off-base entertainment, which was far too expensive for the lower-ranking personnel, who were frozen in the depressed military pay scales of the early '30s. These events were sometimes the only recreational opportunities available to them and their families.

Dargue left the 2nd in October of 1934 to become Assistant Commandant of the Air Corps Tactical School at Maxwell Field, Alabama, and soon afterward was promoted to lieutenant colonel. This new post made him deeply aware of the continuing pressure within the Air Corps for a separate Air Force, coequal with the Army and Navy, the same views for which he had been reprimanded some 10 years previously. These sentiments were especially strong among the younger instructors.

While at Maxwell, Dargue took no steps to officially air his own views on the subject of an independent air force, which he still strongly supported. He likely felt that any statements by him would be adding fuel to the fire, which might then burn out of control. Instead, he gave his faculty the freedom to present their personal beliefs to the officer students. He made certain that the calls of his subordinates for a separate air arm stayed within the bounds of reason and good military discipline, but he also loyally defended them when their views were criticized by personnel of the other Army branches or the Navy.

In the mid-'30s, strategic aviation, using precision bomb aiming techniques, was finally emerging from disfavor by the military establishment as a means of warfare, and beginning to take form as a major weapon in the Air Corps inventory. Dargue, with his background in bombardment, took a great interest in these developments, and during his tenure at Maxwell, worked in close collaboration with the Norden Company, developing and testing what was later to become the super-secret Norden Bombsight of WWII fame.

Upon leaving Maxwell, Dargue, now a colonel, took command of the 19th Wing at Albrook Field, Canal Zone, in October of 1938. His promotion to brigadier general followed soon after. He thus became the first member of his West Point class of 1911 to earn the star of a general officer.

The 19th Wing included several squadrons of Douglas B-18 bombers. During his Canal Zone tour, Dargue led them on a number of goodwill flights to the neighboring countries of Central and South America, many of which he had visited 11 years previously while leading the Pan-American Flight.

By October of 1940, a massive buildup of U.S. air power in response to the spreading European war was well under way. New units were being formed, and career officers found that doors to opportunity and command were being opened rapidly. Dargue was ordered to Washington and assigned as Chief of the Air Corps Inspection Bureau.

In September of 1941, Dargue, now a newly appointed major general, was detached from his Inspection Bureau

assignment and given command of the Air Task Force in the huge field maneuvers conducted in Louisiana. For many years he had stressed 100 percent cooperation between air, sea, and land forces, and the value of the long-range bomber as a strategic weapon. He used the Louisiana maneuvers to demonstrate the validity of these concepts. The successful mock strikes and precision bombing missions carried out by units under his command were instrumental in making strategic air operations a major part of the Army Air Forces battle plan.

In the latter part of 1941, Dargue took command of the 1st Air Force at Mitchel Field, New York. His first action upon assuming this post was to issue an order which placed all bombardment and pursuit units under his jurisdiction on a continuing 24-hour alert. In an interview with news reporters, he stated, "I can assure you of at least one thing—we will not be caught napping!"

A few weeks later, the Japanese attack on Pearl Harbor plunged the nation into war, and it was from this post that Dargue departed on his mission to relieve General Short.

Dargue and a contingent of staff officers, Colonel Charles W. Bundy, Lieutenant Colonel George W. Rickey, and Major Hugh F. McCaffery, aware of the critical time constraints of the mission, made hurried preparations, and left the East Coast on 12 December.

Rather than boarding Dargue's personal transport ship, a Douglas C-49, an early military version of the DC-3, their trip was instead begun in a Douglas B-18 bomber, Army Contract Number 36-306, the 44th production aircraft. It had been delivered to the Air Corps in December of 1937, and was assigned to the 31st Air Base Squadron at March Field, California.

How 36-306 came to be the aircraft of choice is unrecorded, but the most likely reason for taking the B-18 was its immediate availability. Evidently the C-49 assigned to the First Air Force was for some reason unusable, and waiting for its return to service would have meant an unacceptable delay in the extremely urgent flight.

The B-18 was a military version of the commercial DC-2/DC-3 series transport. Except for a wider, deeper fuselage, which featured a bomb bay and crew positions, it was built almost exclusively of airliner components. It was powered by two Wright R-1820-45 engines of 800-horsepower each, giving a maximum speed of 216 mph. After only four years in service, it was already obsolete as a first-line fighting aircraft, having been superseded in that role by its more modern counterparts.

It was the General's habit to take the controls of every machine in which he flew, and Dargue, the old bomber pilot, no doubt welcomed the opportunity to begin his journey to war flying a combat aircraft, even one as outmoded as the B-18. The plan was to use it on the transcontinental leg of the flight, and then switch to a four-engined ship at Hamilton Field, California, for the overwater crossing to Hawaii.

The B-18 flight crew, also based at March Field, was composed of Captain James G. Leavitt, pilot, First Lieutenant Homer C. Burns, copilot, Staff Sergeant Stephen W. Hoff-



Dargue with Boeing B-9 *Death Angel*, long-range bomber, circa 1934. The 2nd Bomb Group crest on his A-2 jacket has as its Latin motto, *Mors et Destructio* ("Death and Destruction"). (NASM)

man, crew chief, and Private First Class Samuel J. Van Hamm, radio operator. Captain Leavitt had received his Air Corps pilot wings on 1 April 1939, and was a relatively experienced aviator for that era. His total flight time was over 1,200 hours, with 139 hours in the B-18. At the time of the flight, Leavitt was commanding officer of the Tow Target Detachment at March Field.

Following an uneventful trip from the east, *B-18 Leavitt*, the radio callsign for the flight, reached Phoenix in the late afternoon of 12 December. After refueling, Dargue made the decision to push on to Hamilton and finish the continental leg of the journey, rather than remain overnight. The extreme urgency of the mission would have made a delay for any reason unthinkable.

The route weather forecasts and conditions were checked. A flight plan via Blythe, California, then northwest over the Mojave Desert and San Joaquin Valley to Hamilton was filed with the Civil Aeronautics Administration Radio Facility at the Phoenix Municipal Airport.

The highest ground along the proposed route was in the southern Sierra, where peaks reached to slightly over 10,000 feet. With a service ceiling of 24,000 feet, the B-18 was capable of easily negotiating these. Icing conditions were not being generally forecast, and contact flight conditions were reported in parts of the San Joaquin Valley. Hamilton was reporting a low ceiling and restricted visibility, but was expected to improve by the estimated time of arrival.

The estimated time en route was five hours, with ETA Hamilton at 2235 PST, giving an average estimated ground speed of 140 miles per hour over the 700-mile route. The aircraft endurance capability is unknown, since this would hinge

on whether auxiliary fuel tanks were installed. If not, the B-18 Flight Manual indicates that the main tank capacity of 430 gallons would give an endurance of 6.35 hours using power settings for an operating true airspeed of 170 mph at an altitude of 10,000 feet.

If only the main tanks were installed, it is not likely that a higher power setting would have been planned, since this would have increased the fuel consumption and decreased the 1.35-hour fuel reserve below acceptable limits. A record of reported upper winds on 12 December is not available, but the 30-mph difference between the operating true airspeed of approximately 170 and the estimated groundspeed of 140 would indicate a significant headwind component was forecast at cruising altitude.

At 1830 Dargue cleared the props and fired up the Wrights. He taxied *B-18 Leavitt* out to the runway, performed the preflight runup, and was logged off by a Mr. Hager of the Phoenix CAA station at 1835 Mountain Standard Time, 1735 Pacific.

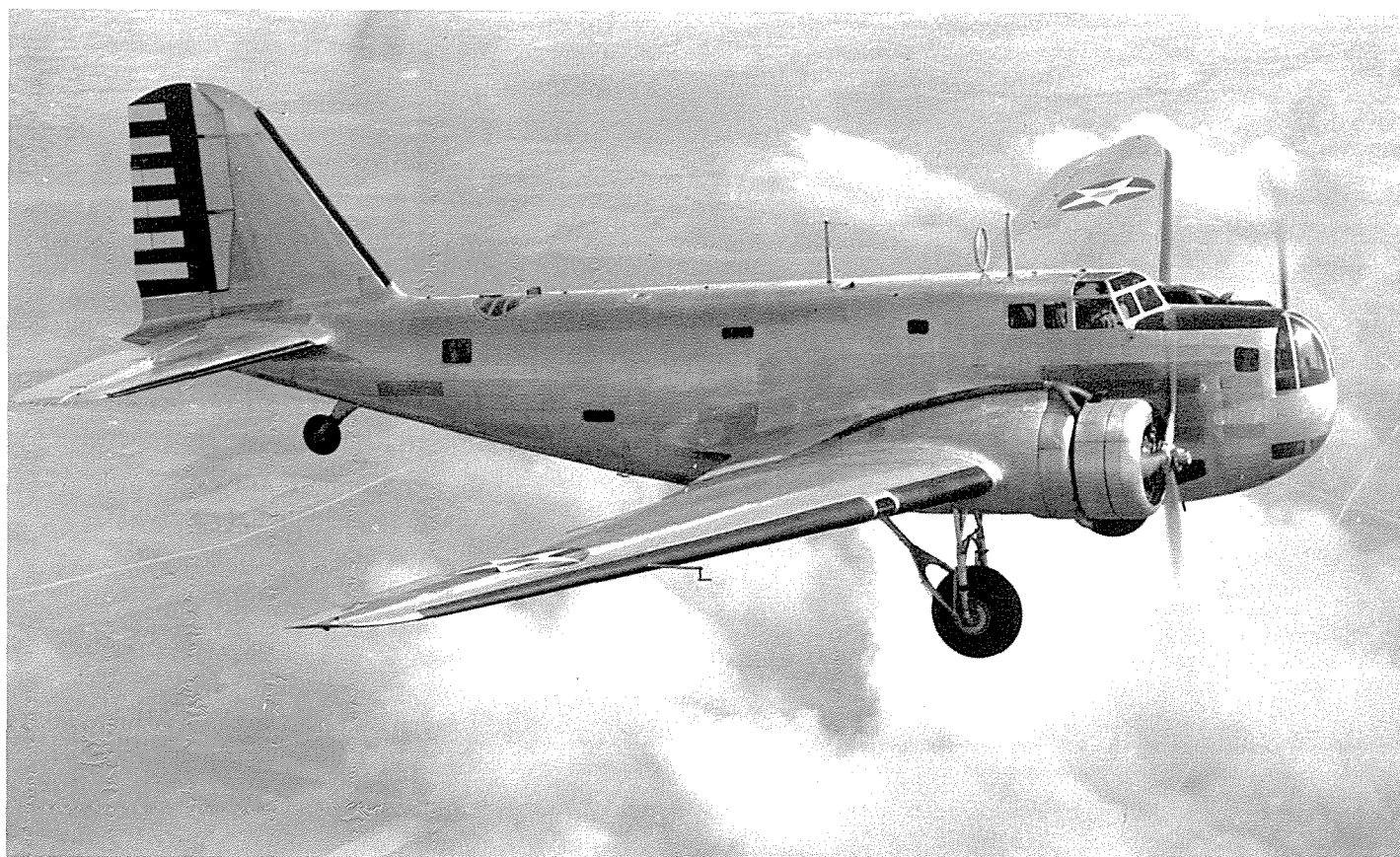
At 1845 PST, Phoenix received a position report indicating that the aircraft was over Blythe, 144 miles to the west, at 10,000 feet. If accurate, this gives a groundspeed of 123 mph, below the original average estimate of 140, but accounted for by the climbout to cruising altitude. Blythe weather at 1830 gave a ceiling of 5,500 feet with broken overcast.

Conjecture regarding the flight path of *B-18 Leavitt* after this report first surfaced in an Associated Press report of 18 December 1941. It quotes Army sources which state that during the position report over Blythe, Dargue changed his flight plan from a route direct from Blythe to Hamilton so as to go via Palmdale. There is no mention of this in Army reports of the flight, and no official record of further communication with the aircraft.

When elapsed time indicated that the next expected position report from 36-306 was overdue, Hager initiated a general broadcast over the Army communication net, giving the aircraft callsign and its flight plan, and instructing any station monitoring a transmission from the ship to contact Phoenix.

A further puzzling factor is that both Secretary of War Stimson's office and the Army "Overdue Aircraft Report" stated that *B-18 Leavitt* had made a radio call at 1955 PST, giving its position as two miles south of Palmdale, California. Later in the Army report, however, Hager is quoted as saying that this last communication was only an "unconfirmed rumor," and the report further states that Palmdale Radio, which monitored all aviation frequencies, had no record of this transmission.

The mystery surrounding the reported change of flight plan, of which there is no record, and this last position report, the existence of which is officially denied, now further deepens. Bert Dargue's son, Donald S. Dargue, a retired USAF Lieutenant Colonel, relates that in 1953 he was pilot-



Douglas B-18, similar to aircraft in which Bert Dargue made his last flight.

(NASM)

ing a C-45 en route from Burbank to Albuquerque. During a routine position report to Palmdale Radio, he asked the CAA flight controller there whether he was aware of the circumstances surrounding the General's last flight, and if he happened to know who had been on duty at the station on the evening of 12 December 1941.

Imagine Dargue's surprise when the controller answered that it was he who was manning Palmdale Radio on that night over 11 years previously, and that he distinctly remembered receiving the position report from *B-18 Leavitt*! Don Dargue is thoroughly convinced that this radioman, whose name is lost to history, knew whereof he spoke, and was in fact the last person on the ground to be in contact with his father.

An accurate position report near Palmdale would have meant that the aircraft covered the 210 miles from Blythe in 70 minutes, giving a groundspeed of 180 mph, a significant increase over the estimated average of 140. These figures are difficult to correlate with later confirmed sightings of *B-18 Leavitt*, since major and inexplicable alterations in track and groundspeed would have been necessary for the aircraft to appear at the time and place where it was next seen.

Whether the airplane was actually near its reported position at the time of the Palmdale call remains undetermined, as do the reasons for denial by Hagar and the Army "Missing Aircraft Report" of its communication with Palmdale Radio. These and other unanswered questions surrounding the last flight of AC 36-306 will doubtless never be resolved, at least on this mortal level of existence!

Night air navigation in those pre-radar, pre-VOR days was

dependent to a great extent upon tracking a low-frequency radio beam between two range stations, and aircraft position was periodically determined by a series of radio fixes, each of which was obtained by taking one or more bearings from other range or broadcast stations. These were the only means available, other than celestial navigation, for flight crews to accurately plot their position when unable to sight identifiable landmarks such as brightly lighted cities and towns or flashing airway beacons.

Celestial navigation was used on long overwater flights, but not generally within the continental U.S. Thus it is doubtful that there was any celestial navigation equipment aboard *B-18 Leavitt*, and it is also unlikely that any of the crew was a currently qualified celestial navigator.

While it seems evident that a communication failure involving both its transmitter and receiver did occur aboard the aircraft at some point after the Palmdale contact, it cannot be established with any degree of certainty where or when this took place. What is certain, however, is that with a complete radio failure, the crew would have been left without an accurate means to determine their position. If the transmitter alone was inoperative, radio navigation would have continued, but without position reports. If only the receiver was out, the crew could have at least transmitted blind to ground stations and informed them of the problem.

A means of navigation available to *B-18 Leavitt* which did not involve radio signals was dead-reckoning, commonly referred to as DR. In order to continue on to their destination after a radio failure, the crew would have constructed a DR plot using the last confirmed position, course, true airspeed,

time, and the last reported winds at cruising altitude. When computed, this would furnish a heading to maintain the course, an estimated groundspeed, and estimated distance traveled each hour. Such a DR plot, while able to give an approximate position under ideal conditions, lacks accuracy, and is not a good substitute for a positive visual, direction finder, or radio range position fix.

The question arises that if in fact there was a communications failure, why did Dargue not simply proceed to March Field, only an hour or so away, and have the radio repaired before going on to Hamilton? That would have been on the normal procedure during peacetime, but it is most unlikely that this course of action ever crossed the General's mind.

Bert Dargue had been given the most crucial and important assignment of his military career. He saw the possible fate of the nation hinging upon his quickly reaching Hawaii and taking command. Stopping at March could have meant a delay of one or more days, which, given the urgency of the flight, was unthinkable. Nothing short of the failure of both engines would have kept him from pressing on.

In any case, Dargue was a veteran cross-country pilot, well accustomed to flying straight-line, off-airway courses, and not relying upon radio navigation to arrive at his destination. In his *Air Force* article, General Kuter, Dargue's friend and sometime copilot, gives some insight into the General's confidence in himself and in the machines which he piloted:

"Bert Dargue had absolute faith in the aircraft he flew, primitive as they would seem today. I flew with him many times from Maxwell to Washington in the late 1930s. He always drew a straight line and flew off airways. His course took him up the backbone of the Appalachians and over the highest of the Great Smokies.

"Dargue believed that a prime virtue of the airplane was its ability to ignore mountains, rivers, and winding surface routes and go straight from one point to another. That was the way he flew. Doubt about the accuracy of flight instruments or the performance of well-maintained aircraft was simply incompatible with Dargue's personality, his convictions, and his confidence in aviation."

B-18 Leavitt was next sighted one and one-half hours after its radio contact with Palmdale. At 2125, the aircraft appeared over Lone Pine, a small community in the Owens Valley just to the east of the Sierra Nevada. The route it followed to arrive there, and why it was over 90 miles off course, will remain forever a mystery.

According to a news account in the *Inyo Register*, the airplane passed over Lone Pine at a low altitude. It then proceeded 15 miles north to Independence, where it circled the town. Owens Valley weather for this time period is not available, but ceilings and visibilities were evidently sufficient for the crew to locate both towns and to circle Independence.

At approximately 2140, employees of a power plant in Big Pine Canyon, 14 miles south of Bishop, heard the aircraft "flying low" and saw it drop a flare. At 2145, witnesses in Bishop saw a flash in the sky, followed by a fire in the mountains to the south and west of town, which continued to burn for approximately 20 minutes.

BERT DARGUE'S FLYING CAREER, BEGUN IN THE STEAMY tropic heat of the Philippines, had ended 28 years later in the cold and snows of the High Sierra. Ironically, this veteran pilot, who early in the century had pioneered the use of radio in military aviation, almost certainly died because of failure of his aircraft communication equipment.

Returning to the controversial Palmdale radio call at 1955, it is evident that, if the aircraft was in fact near Palmdale at the time of reported contact, it would have had to have made a 50-degree change of direction from its course to Hamilton so as to pass over Lone Pine. Also, the distance from Palmdale to Lone Pine is 145 miles, and it was sighted there at 2125, 1.5 hours later, which gives a groundspeed of only 97 mph between the two points, assuming a straight-line track was maintained, which may not have been the case.

In an attempt to lend more accuracy to the DR plot, the crew may have tried to determine current wind direction and velocity at cruising altitude by one or more double-drift navigational maneuvers. This method of wind determination entails taking a drift reading while on the original heading by lining up objects or lights on the ground in the aircraft driftmeter. A heading off course at a 45-degree angle for a given time is then taken, and then a heading back to course is flown at another 45, while again recording aircraft drift on both headings. The wind direction and velocity can then be calculated from the drift observed on all three headings.

These detours off course for wind determination, if attempted, were obviously unsuccessful, possibly due to an inability to remain in sight of any ground lights for a sufficient length of time. They might have contributed to the low average groundspeed, however.

There is no indication on the weather chart of 12 December '41 of winds of the necessary magnitude to alter the aircraft track 50 degrees and reduce its groundspeed to 97 mph. Given the large change in direction from the projected course to Hamilton which was required to place the aircraft over Lone Pine, there seems to be no ready explanation for *B-18 Leavitt* appearing on the east side of the Sierra Nevada mountain range rather than to its west.

Bert Dargue was a veteran pilot, with over 5,800 flying hours, and was currently instrument qualified, as was Leavitt. It would be unthinkable for two such experienced aviators to allow their aircraft to drift off course by even a fraction of this amount, even given the uncertainties of navigation by dead-reckoning only. With this in mind, a false heading indication of the aircraft magnetic compasses, the result of a number of possible malfunctions or conditions, is one circumstance which cannot be ruled out as the cause of *B-18 Leavitt's* considerable movement to the east of its course line.

It seems evident that by 2125, regardless of whether the position report at Palmdale was accurate, time and distance calculations along the projected course to Hamilton would have led the airmen to believe themselves somewhere over the San Joaquin Valley, and to the north and west of the highest ground along the route. At about this time, the towns of Lone Pine and Independence were sighted. They let down



and circled Independence, hoping to identify it.

At this stage of the flight, the crew was no doubt extremely anxious to get an accurate position fix so as to chart a revised course to Hamilton. If auxiliary tanks were not being utilized, their fuel situation, while not yet critical, would have begun to be the cause of some concern.

There is another puzzling aspect, however, which adds to the mystery surrounding the loss of the aircraft. The town of Independence, at 3,900 feet, is approximately 3,500 feet higher than the mean elevation above sea level of the Central Valley floor. If indeed the aircraft was at a relatively low altitude above ground level as it flew up the Owens Valley, the crew for some reason, possibly because of restricted visibility due to partial cloud cover, failed to equate the relatively high altitude above sea level of the unidentified town which they were circling with the possibility of its being located to the east of the Sierra Nevada rather than to the west of the range.

It seems evident from subsequent events that this altitude discrepancy was indeed overlooked. The taking up of a slightly more northerly heading after leaving Independence is consistent with a conviction of the crew that they remained well to the west of any high ground. The flare dropped near Big Pine Canyon shortly before the crash can be seen as a last, desperate action, taken when the airmen became suddenly aware of the chilling fact that they were far off course above mountainous terrain, which they almost certainly believed to be the western slopes of the Sierra. The location of the crash site indicates a southwest heading at the time of impact, no doubt taken in belief that lower ground lay in that direction.

Now, let's join the crew in the cockpit of 36-306 during the final minutes of its last flight.

Bert Dargue flies the aircraft from the left seat, with Leavitt

in the right. The ship is suspended in a black void, with no lights or other ground features visible. The radium-coated instrument needles glow softly, bathed in a flood of ultraviolet light, and the big Wrights are purring smoothly, but all is not well with *B-18 Leavitt*.

Both pilots, as well as Lieutenant Burns, who is standing behind them, intently scan the featureless darkness which surrounds the aircraft, searching for a landmark, any landmark, to positively fix their estimated DR position. Staff Sergeant Hoffman occupies the bombardier's position in the plexiglass-enclosed nose, where he peers anxiously out into the night, hoping to be the first to spot the welcome lights of an identifiable town.

Private 1/C Van Hamm has long since given up trying to raise a station or receive signals on the inoperative radio. He sits dejectedly at his station amidships, toying sporadically with the dead Morse key.

Dargue's three staff officers huddle in the aft fuselage, occasionally peering out a small window in a vain attempt to penetrate the encompassing blackness. They know the flight is in trouble, but are helpless to render any assistance. They sit in melancholy silence, waiting to see what happens next.

From time-distance calculations, the airmen believe their position to be somewhere above the San Joaquin Valley. They are uncomfortably aware, however, that after well over an hour of navigation by dead-reckoning only, their projected course and the actual track of the aircraft over the ground may not coincide, and that it is imperative for them to sight an identifiable landmark soon.

Much of the flight has been either above an overcast or in cloud, but at 2125 the lights of a settlement appear directly ahead. Dargue lowers the nose in a steep descent, and *B-18 Leavitt* roars over the community and continues on toward another group of lights which come into view some 15 miles to the northwest.

This latter light source turns out to be a small town, possibly identifiable on the map in conjunction with the first. Dargue lowers a wing and circles, while Leavitt anxiously scans an aeronautical chart, which is illuminated by a dim red floodlight.

Perhaps because the ground is partially obscured by cloud, making it difficult to judge altitude, the airmen, as they circle, somehow overlook the fact that if they are indeed above the San Joaquin Valley, their altimeter should read several thousand feet lower than the height indicated.

Leavitt confers briefly with Dargue, and they agree that while the town cannot be identified, elapsed time, even allowing for a significant variation in groundspeed, indicates that the flight should now be somewhere over the west side of the valley, possibly abeam of Fresno, or having passed that city, approaching Merced. They take up a slightly more northerly heading so as to have a better chance of sighting what they hope will be the lights of an identifiable navigational fix.

The town disappears behind them, and blackness again envelops the aircraft. There is no horizon, and no sign of the glow of other towns which should be coming into view on the

The wreckage of B-18 AC 36-306 rests on a rocky slope near the 11,000-foot level just above Birch Lake, Inyo County, California. It was cut up and removed for smelting by the Sierra Club in 1973.

Major General Herbert A. Dargue, Commanding General, First Air Force, Mitchel Field, New York, 1941.

flat valley floor. The airmen strain forward, searching intently to sight any object on the ground, no matter how faint.

Suddenly, there is an agonized shout. A gloved hand points frenziedly to a snow-covered outcropping sliding rapidly past only scant feet below! Dargue acts instantly. His dead-reckoning calculations cause him to believe that the ship has somehow drifted east from over the San Joaquin Valley. He racks the aircraft around in a steep climbing turn to the southwest, away from what he thinks to be rising ground. He shoves both prop controls forward to redline engine rpm, opens the throttles to their stops, and begins a desperate struggle for altitude at maximum rate of climb. The big Wrights bellow and the props scream in agony as they strive to bite the thin air, while the echoes reverberate wildly off the sheer granite cliffs below. When the climb is established, Dargue orders a flare drop.

The blazing flare becomes a torch of doom for *B-18 Leavitt*. By its glittering light, great snow-clad mountain peaks stand starkly revealed, towering high above the aircraft. Dargue holds grimly to his southwest heading, believing the sole hope for safety lies in that direction. The ill-fated bomber strains in a desperate effort to lift itself up and out of the abyss, but to no avail. At this altitude its maximum rate of climb is pitifully inadequate to clear the sharply rising ground ahead. After a few mercifully short moments, the eight souls aboard depart west on a longer and higher flight in its explosive impact against a steep mountainside.

As the fire which enveloped the shattered wreckage subsides, a light snow begins to fall, cooling the tortured metal and gradually blotting out the grisly scene. It seems as if a grieving Earth Mother is seeking to cloak this spectacle of death with her all-concealing shroud of white.

Several residents of Bishop saw the glow of the crash fire, and placed its location to the south of town, and somewhat west of an extension of Main Street, the main north-south thoroughfare.

Military authorities were notified, and an Army aircraft arrived the next day to begin a search. Two civilian pilots had sighted a burnt pine tree along a ridge near where the fire was observed, and the hunt was concentrated in that area. Additional snowfall had meanwhile added to the original cover. By the end of the week, although several additional aircraft and a contingent of soldiers from the Muroc Army Bombing Range were combing the area, it was agreed by all parties that further search would be useless until the spring snow melt.

The grief and sense of loss felt by the survivors of the men aboard *B-18 Leavitt* was especially strong in the family of First Lieutenant Homer Burns, the ship's copilot. It was difficult for his loved ones to accept that the life of this fine young officer, who loved flying and Air Corps life, had been so quickly and cruelly snuffed out. Adding to their sorrow was



the agonizing thought of his body lying unburied beneath the Sierra snows.

After the Army ended its search for the crash site, Homer's father, George B. Burns, a Spokane, Washington realtor, traveled to Bishop, strapped on a pair of skis for the first time in his life, and began relentlessly combing the area where the fire was sighted. His one goal was to recover his son's remains for interment in the family plot. He was joined in this melancholy search by a local guide, until continuing heavy snows forced them out of the mountains.

The Army was also anxious to recover the remains of the airmen, and was greatly concerned that the top secret documents carried by Dargue not fall into the wrong hands. However, by the spring of 1942, the military's intention to continue the hunt was necessarily deferred by the engulfing tide of war which had swept over the nation. America was locked in a desperate struggle for its very survival, and the Army, while sympathetic to the desires of the victims' families for a speedy discovery and retrieval of the bodies, had no personnel or equipment to spare for what could well become an extended search.

Frank Burns was still driven by the compelling need to find Homer's body. He could not rest, or find a moment's peace, until his son was interred in the family plot in Spokane, and was unwilling to wait for a turnaround in the war which would allow the military search to resume. Early in May, responding to reports of a rapidly melting snowpack, he was again back on skis, criss-crossing the Sierra slopes southwest of Bishop accompanied by Norman Clyde, an experienced local mountaineer.

The exhausting search ended on 5 May when Clyde laboriously climbed to the top of Kid Mountain, at an altitude of 11,900 feet, and scanned the surrounding panorama of

mighty peaks with powerful binoculars. The glint of sunlight reflecting from a twisted shard of metal on a steep, rocky incline just above Birch Lake signaled the final resting place of *B-18 Leavitt*. Its remains lay on a north slope, scattered over an area of 400 yards near the 11,000-foot level.

The next day, Burns, his son-in-law, Albert Bergen, and Clyde set out from Glacier Lodge and toiled up the steep incline to the crash site. The first object they sighted was a pistol belt and holster inscribed with the name of Burns. A frozen body lay in view, but was not identified as that of Homer. They did not disturb the scene, but made their way back to the lodge, where Homer's wife, mother, and sister waited to hear the sad, but heartening, news that the long search was over.

Burns gave the following statement to the press: "We are so relieved to find the body of my son. He loved flying and serving in the Army. It has been a long wait, but I pledged myself last December that I would never give up the hunt until I had found his body . . . I knew that somewhere, somehow, sometime, I would."

On 7 May, Inyo County sheriff's officers and a contingent of soldiers from March Field made their way up Birch Creek from a base camp at McMurtry Meadows and began the joyless task of recovering the airmen's remains. Snow and ice still covered portions of the crash site, and made slow work of the undertaking. On 4 July, after much of the snow had finally melted, the bodies of Bert Dargue and James Leavitt were discovered, lying side by side nearly 100 yards from the main wreckage.

The shattered remains of AC 36-306 were allowed to rest in peace on the rocky slope overlooking Birch Lake for more than 31 years. Infrequent visitors to the remote site saw the wreckage as a monument to the gallant men who died there. In October of 1973, it was cut into pieces and removed for smelting by a party of Sierra Club members intent on "cleaning up the environment."

BERT DARGUE DIED AS HE NO DOUBT WOULD HAVE wished, at the controls of a military aircraft. During his final moments of life, his last regret almost certainly was that his crucial mission would remain unaccomplished. It can only be speculated as to what positive effects his inspiring leadership and expertise in strategic aviation would have had upon the American war effort in the Pacific.

With his exemplary sense of duty, Bert Dargue never sought glory or accolades for himself, and his extreme modesty and self-effacement resulted in many of his outstanding accomplishments being credited to his subordinates. For this reason, and the fact that he died in the line of duty rather than in combat, Dargue's many significant contributions to American airpower, and to the eventual establishment of an independent United States Air Force, have not been recorded in the same detail as those of his more famous or flamboyant contemporaries.

Hap Arnold, his longtime close friend, wrote Dargue's obituary in the October 1942 United States Military Academy *Assembly* as follows:

"He was affiliated with Army aviation almost from its

inception, but was always looking forward, alert to the potentialities of the latest aeronautical developments. His contributions over a period of many years were exceptional. Many of our successful policies and practices we owe to him. He had a remarkable gift for analyzing a complicated problem and promptly putting forward a practical solution to it. He was indeed a most resourceful soldier. We shall miss him keenly as a personal friend and fellow officer. . . . He was one of our first flyers, and always one of our best."

His friend and fellow pilot at North Island, Christy Cole, writes a more poignant tribute in his *U.S. Air Services* article: "General Dargue was the patient instructor and the never-failing friend of many of our Army Air Corps officers of today, most of whom are now wearing stars or eagles on their shoulders. All of us, officers and enlisted men alike, knew him for one of the finest flyers our Army ever produced. Those of us who had the pleasure of being associated with him in his chosen life work, and are still on this side, wish him Happy Landings in his flight across that horizon from which none of us will return. Flying made him great, and he made flying great." □

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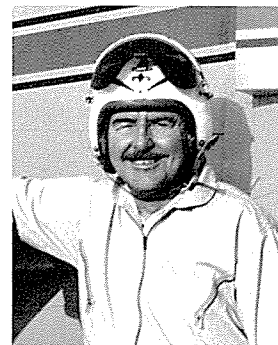
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J.J. Snyder was born in Chicago, Illinois, but grew up in Fresno, California. He graduated from Reedley College, Reedley, California, and took flight training at Great Western School of Aeronautics, Reedley, soloing in a J-3 Cub.

As a pilot, Snyder has logged over 13,000 hours, with 11,000-plus hours of time in a variety of agricultural aircraft. A duster pilot since 1962, he flew experimental and conventional pesticide applications day and night, in southwestern U.S., Europe and Africa.

He has authored training programs and standards, produced video tapes, and conducted training seminars, covering all phases of crop dusting. "Dargue's Destiny" is Mr. Snyder's first article for the *Journal*, but his extensive writings on flight safety, aerial application and aircraft maintenance have been published in



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An A&E mechanic with extensive experience on military, transport, agricultural and general aviation aircraft, he has owned and restored a Ryan ST-3K and a North American SNJ-4.

Military service in the USAF and USNR encompassed duties as aviation mechanic, command pilot, certified instructor and military historian. He is currently a flight operations and maintenance consultant and freelance writer.