

## **Bert Acosta**

Born 1895. Died 1954.



Bertrand (Bert) Blanchard Acosta was born in San Diego, CA, on January 1, 1895. In his resume to the Navy he wrote he had been "learning to fly in 1910 - Personal research constructing experimental and research work in heavier-than-air aircraft". In other words, he built his own plane and at the age of 15 years flew it. From that time on, flying was in his blood. He became Aviation's most gifted natural pilot ever to come down the road. Elinor Smith, the record setting Aviatrix, who knew Bert said, "Bert didn't fly an airplane, he wore it." Such was his reputation as a pilot.

He was a multi-task aviator; flew *all* of the light planes in the 1910's and 1920's - up to the first heavy Transport Planes; laid the first Air Mail routes while carrying Air Mail; was considered to be the first true light aircraft Test Pilot as well as the first heavy Air Transport Test Pilot (as acknowledged by his peers); an aircraft mechanic; a record setter; a barnstormer; an Aeronautical Engineer; a Flight Trainer; an inventor; and a military and passenger aircraft demonstrator.

He was also the Chief Pilot on Cmdr. Byrd's 1927 "America's" Transatlantic Flight. It was a weight record of a first time lift off and was what set Bert apart. Only his many years of experience flying heavy Transport Aircraft, coupled with his extraordinary ability, was he able to guide the heavy tri-motor on that too short and too muddy runway until they were air borne. It was the heaviest load (7-1/2 tons or 15,000 lbs) of plane, cargo and crew any pilot had ever lifted and part of that load was a piece of Betsy Ross' flag and 150 pounds of mail; and was the first Transatlantic Transport Flight to deliver Air Mail to Europe.

### **Other mail services:**

1918 – After the Armistice, he was instructed to survey and map the nation's first Airmail routes. He flew in and out of 60 American towns and villages. His routes were implemented and Airmail was instituted in this country. The Air Corp pilots took over and delivered the mail after that. Acosta said, "Establishing Airmail routes was my most outstanding accomplishment (at the time)."

1920 – 7/29 – With Captain Eddie Rickenbacker, he laid the first Airmail routes from NY to San Francisco. In September of that year regular mail flights began.

1920 – 8/28 – With S.C. Eaton, Bert flew from New York to Oakland, CA. They delivered the first Transcontinental Airmail (100 letters delivered) in the record time of 36 hours and 40 minutes. The first *scheduled* Transcontinental Airmail Flight didn't occur until the following September.

1921 – 1-23 – First Transcontinental Air Mail Flight – Started San Francisco - arrived Hazelhurst Field, New York – 2,629 miles – 33 hours 20 minutes avg. 104 mph.

**Admiral Richard E. Byrd wrote in a letter to Cmdr. G. O. Noville, Radio Operator on the 1927 Transatlantic flight: *"I had for him much affection as a friend, and great admiration for him as one of the great fliers of all time. On the Transatlantic Flight of 1927 he demonstrated his greatness in connection with the most remarkable take-off in history, and at the controls of the plane as we fought through three storms over the Atlantic."***

Bert's life was full and interesting, if not tragic, replete with good times and bad times. After his best years of flying were over and his alcoholism could not be controlled, in a sanatorium in Spivak, CO, on September the 1st, 1954, at 1:15 p.m., cancer did what his restless heart never could, it took him home to a well earned and everlasting rest.

## **René Arnoux**



French aeronautical engineer René Arnoux is a pioneer in the development of the tailless airplane. Arnoux's work is very significant in that he followed quite a new way of designing a flying wing, which has become of more and more importance. Arnoux is the real originator of the "flying plank" class of tailless airplane.



René Arnoux, Stabloplane, 1912

All his planes used a plain straight rectangular (or slightly tapered) wing, without any sweep-back, dihedral, stagger, or stabilizing wing tips. His first biplane, built in 1909, was followed in 1912 by a monoplane ; the airfoil section had a reflex camber. At the Paris Air Show in 1913, Arnoux exhibited his "Stablavion" monoplane, a low-wing two-seater motorized by a 55 hp pusher engine. Both monoplanes were tested in flight at Issy-Les-Moulineaux.

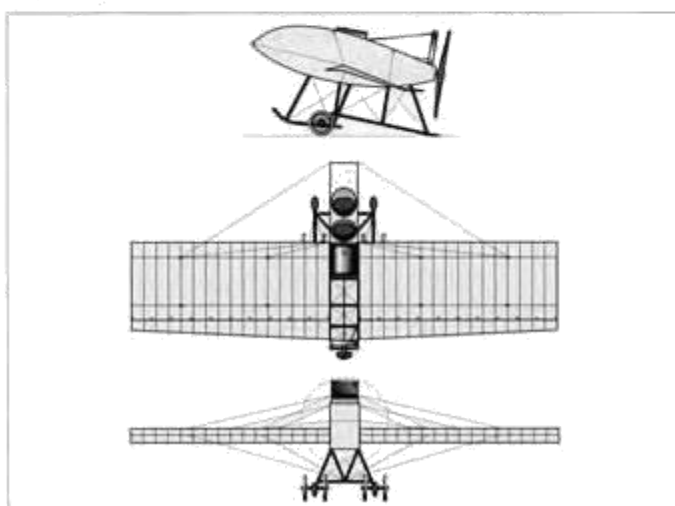
Shortly after the war, Arnoux took up his work again. In 1919/1920, he constructed from components of war-time airplanes a tailless biplane ; it was motorized by a 130 hp rotary engine and had vertical rudder surfaces behind the pilot at both sides of the short nacelle. During 1922, a number of successful flights were made with this biplane.



### Arnoux Stabloplane (France)

En novembre 1912, à la 4<sup>e</sup> Exposition de la locomotion aérienne, au Grand Palais, à Paris, René Arnoux présenta un biplace en tandem sans queue baptisé Stabloplane. À la différence du Stablavion, le Stabloplane était à moteur propulsif. Par contre, la voilure demeurait la même. Cette machine aurait été détruite lors des essais à Issy-les-Moulineaux.

Moteur : un Chenu de 55 ch - E : 10,75 m - L : 5,0 m - S : 20 m<sup>2</sup> - λ : 5,78 - Mv : 370 kg.



After modification to a single-rudder, it was demonstrated with success to the French aviation authorities, and the results of the tests were so promising that the "Société des Avions Simplex" firm was formed for the further development. The biplane was, however, destroyed in a crash in which the pilot, Fétu, sustained severe injuries.

The first design of the Simplex firm was a racing monoplane with a 320 hp Hispano-Suiza engine for the Coupe-Deutsch race of 1922. The design was due to Carmier, and the plane was to be flown by a well-known fighter pilot, Georges Madon. It was a cantilever monoplane with a tractor engine and full-span controllers.

The short fuselage ended in a vertical fin with a rudder. The pilot sat rather far back behind the leading edge of the wing ; in addition, a barrel radiator excluded any view forward. So it was not surprising that even a very experienced pilot like Madon could meet with an accident during a test flight prior to the race.

He escaped with severe injuries, and the general impression created was rather unfortunate. Since Fétu had previously met with a grave accident with the Arnoux biplane, the fate of this interesting development was sealed. Arnoux himself seems to have been discouraged from further pursuing his line of investigation.

Of all tailless aeroplane systems, the type created by René Arnoux undoubtedly presents the greatest simplicity, it is aerodynamically satisfactory and structurally superior to any other known tailless system. For these reasons, Arnoux's work deserves more attention and merit than it received.

## **Florence "Pancho" Barnes - Aviation's Companion**



The saga of the Air Force Flight Test Centre would not be complete without mention of one of its most enduring friends: Ms Florence Lowe Barnes, known to all the world by her favoured nickname "Pancho." Never officially a part of the Edwards Air Force Base community, nor ever directly connected with the Air Force, she nevertheless spent many years as one of its most enduring champions and unswerving friends. In recent years, she has become familiar to the general public as the colourful, swashbuckling friend of America's best known test pilots. But the aviation community has always known her as a skilled professional and one of the respected figures in the Golden Age of flight. Long before Pancho Barnes ever set foot in the Mojave Desert, she had already made her own mark in the progress of American aviation and women's role within it.

### **The Early Years**

In retrospect, her life seems to have been star-crossed from its very beginning. Florence Lowe Barnes was born into a setting of family wealth and privilege on 14 July, 1901. She spent her childhood in a 32-room mansion in San Marino, California, then as now a genteel enclave of shaded estates and tasteful villas near Pasadena. The confidence and self-possession which tend to come with affluence and position would serve the young woman well in the years ahead. Two men dominated her early life. Her father, an avid outdoorsman, freely passed on his enthusiasms to his daughter, and the young Florence absorbed horsemanship and hunting skills along with the genteel accomplishments taught by a series of private schools and tutors. Her grandfather, Professor Thaddeus Lowe, gave her another lasting gift--a fervour for aviation. One of the founders of the California Institute of Technology, he is better known to history as the intrepid balloonist who spied on the Confederate lines during the Civil War and organized the nation's first military air unit, the balloon corps for Lincoln's Army of the Potomac. The veteran aeronaut took his young granddaughter to see her first air show at the age of nine. It is probably too glib to say that the excitement of that outing changed her life forever, but there is no doubt that airplanes soon ranked with horses in her passions.

First, however, would come a proper marriage, followed by the birth of a son. At the age of 18, Florence wed the Reverend C. Rankin Barnes, a prominent Episcopal priest, and settled down to the duties expected of a proper clergyman's wife. In due course their son, William, was born. Not long afterwards, however, the young bride's self-reliant personality asserted itself in dramatic fashion: abandoning church and child in 1928, she disguised herself as a man and signed on as a crewmember aboard a freighter headed for Mexico. Once the ship was safely docked at San Blas

with a cargo of bananas and contraband guns, she jumped ship with a renegade sailor and spent four months roaming through the revolution-torn interior. Somewhere along this trek, while riding a donkey, her comrade dubbed her "Pancho" for her fancied resemblance to Don Quixote's faithful companion. She was delighted with her new nickname, and kept it for the rest of her life.

## **Into the Air**

Returning to San Marino later that year, she turned her eyes toward the skies. By then, Wall Street's Bull Market was roaring along, the public was wildly air-minded in the aftermath of Lindbergh's flight to Paris, and the nation's adrenaline level perfectly matched her own. Pancho bought an OX-5 powered Travelair biplane, hired an irascible but expert instructor, and set out to learn how to fly. Defying her teacher's best efforts to discourage his "dilettante" student, she soloed after only six hours of instruction. The young socialite promptly celebrated this feat by taking a friend aloft and buzzing the field while her passenger wing-walked among the flying wires. From that point onward, aviation became the dominant note in her life.

Scorning the genteel aspects of her upbringing, Pancho took to wearing men's clothes, often oil-stained and dishevelled, and to smoke cigars. Kitchen matches scratched across the seat of her pants replaced silver cigarette lighters, and her speech, never too delicate at the best of times, became notoriously coarse and salty. Although Pancho was always ready for a laugh, however, she was never a buffoon in the air. Always, she took flying seriously and went to great lengths to become a skilled pilot as well as a practical mechanic. Her professional approach to flying never, of course, prevented her from enjoying enormous fun along the way. Soon tiring of buzzing her husband's dignified church during Sunday morning services, she assembled something called "Pancho Barnes' Mystery Circus of the Air," and went on barnstorming tours with herself as a star performer. She shared the spotlight with an improbably handsome parachute jumper named Slim, who specialized in enticing young females from the audience into their first airplane ride and shortly--to their great surprise--into their first parachute jump as well.

## **Satisfaction in the Sky**

The young aviatrix burst onto the national aviation scene barely a year after her first solo flight. In August, 1929, she joined nineteen other women in the Women's Air Derby, a transcontinental air race from Santa Monica to Cleveland. for women. This was the first Powder Puff Derby, still being flown today. She got as far as Pecos, Texas before she ran afoul of the casual airfield-management practices of the day, colliding with a truck driving down the runway. Pancho was unhurt, but her broken airplane put her out of the race for that year.

By then, her growing reputation enabled her to sign on with Union Oil Company for a three-year stint of demonstration flights and promotional work in return for sponsorship in many of the air races of the day. She returned to the Powder Puff Derby the following year in a powerful new



Travelair *Mystery Ship*, a low-winged speedster with huge wheel spats which has been called the most beautiful of the great racing airplanes. Blasting across the route at an average speed of 196.19 mph, she took the world's speed record for women away from Amelia Earhart.

Not content with this, she honed her aerobatic skills and set out to become one of Hollywood's favourite stunt pilots. The film capital was no stranger to Pancho; even as a debutante she had slipped away from San Marino to dabble in movie work as a script girl and other jobs. The adventurous aristocrat had even doubled for Louise Fazenda in the horseback scenes in the early Rin Tin Tin movies. Now she became the technical director for Pathe's *The Flying Fool*. Shortly she formed her own company and, with three pilots working for her, encouraged the studios to contract with her for guaranteed work, rather than the hit-or-miss method of hiring their own pilots each day. This marked the beginning of the Associated Motion Picture Pilots.

It was also the beginning of numerous "Pancho stories" which circulate freely today: her friendships with the film luminaries of the time--Gary Cooper, Tyrone Power, Errol Flynn--and rumours of romances with Ramon Navarro and/or Duncan Renaldo. There was a colourful feud with Roscoe Turner involving an impromptu air race, Gilmore the lion, and a pair of powder-blue kidskin boots.

## **Retreat to the Desert**

All good times come to an end, however, and so it was for Pancho's dizzying world of flying, glamour, and money. The new talking motion pictures displaced many film careers and brought a new era to the movies. The nation settled ever deeper into the Depression and the fortune which Pancho inherited from her mother began to melt away, hastened by an indecorous conflict within her own family. Still officially married to the hapless churchman, she traded most of her surviving assets in 1935 for a small, quarter-section ranch in the desolate reaches of the western Mojave Desert. There, on the far side of the mountains which had loomed over her San Marino estate, Pancho Barnes took her 12-year-old son and settled down to the unlikely life of a rancher in the High Desert.

It is romantic, but not totally realistic, to think of the redoubtable Mrs. Barnes as a simple small-time farmer in the wilderness. A working ranch it was, but from the first she had a foreman and crew to raise alfalfa and care for the livestock--hogs, a few head of cattle, and of course horses. She was never without an airplane, and one of the first things she did was to scratch out an airstrip on the desert hardpan. She might be far from the lights and glitter on the other side of the San Gabriel Mountains, but she didn't cut herself off from her old friends and connections. Still, she loved the outdoors; she had all of the High Desert to ride across and, meanwhile, there was a living to be earned. Pancho set out to make the most of her new environment.

## **A New Door Opens**

Pancho's new world was remote, lying alongside a dirt road connecting two hamlets--Muroc and Rosamond. Her spread occupied the lowlands between two large desert playas. Nothing much ever came of Rosamond Dry Lake to the west. But some interesting activity was already stirring on the far shore of the other huge lake bed to the east. Rogers Dry Lake was 44 square miles of rock-hard flatness, the largest such lake in the world. Pancho arrived on the scene not long after the Army Air Corps did; in 1933, working parties in khaki had arrived to set up a bombing and gunnery range to serve the fighters and bombers from March Field, California. An orderly array of army tents housed the range keepers--a detachment of young soldiers who must be fed. Army rations trucked up from Riverside were supplemented with whatever local-purchase foodstuffs might be available, and Pancho rose to the opportunity. Pork and milk from the ranch appeared in the Army mess hall, and Pancho shrewdly contracted to remove the encampment's garbage--which was recycled directly into her hog population.

Soon, Pancho began to expand her operations, enlarging her herd of milk cows and selling dairy products throughout the valley. The remains of her family money went into ranch improvements and within a few years the ranch had expanded from 80 acres to 368. She enlarged the ranch house and built a swimming pool--an exotic touch for the late 1930s. As war clouds gathered abroad and the nation began to shake off its peacetime torpor, the Air Corps began a long-overdue expansion. Even the bombing range grew larger; the government bought up great amounts of land; permanent buildings went up, and officers and enlisted men began to appear in larger numbers.

When World War II arrived in the High Desert, Pancho was swept along with the current. The gunnery range became Muroc Army Air Field, a huge expansion began on the western shore of the lake, and permanent runways were built for year-round use. Suddenly a major military installation lay only three miles down the road. Pancho had always been partial to her "Foreign Legion of the American Army" and she was delighted at the new turn of events. Patriotically, she made her ranch available to off-duty fliers. Officers--and especially pilots--were welcome in her swimming pool; often they stayed to dinner and the flying talk went on far into the night. Pancho offered her horses for the recreation of those who could ride, and bought more. By degrees, the desert exile became a hostess.

## **The Good Years**

In retrospect, it all had a kind of inevitability about it. The airmen loved Pancho's party atmosphere and the opportunities for other recreation were severely limited. Wartime money was suddenly available, visitors were always needing a place to stay, and Pancho had plenty of room to expand. A bar and restaurant appeared, then a dance hall, another bar, and a coffee shop. Most of the booze came up from Mexico in Pancho's plane and was dispensed freely; the more expensive stuff stayed under lock and key. The airstrip was enlarged and lighted for the increasing number of guests and friends who flew in, and a motel was built for their convenience. Soon Pancho found herself the proud mistress of the Rancho Oro Verde Fly-Inn Dude Ranch.





Ever more boisterous, profane and swashbuckling, Pancho proceeded to have the time of her life. Almost gleefully, she allowed time and the dry desert air to transform her youthful appearance into the storied homeliness by which most remember her. To compensate, Pancho imported an ever-changing bevy of attractive hostesses to serve the weary airmen. Even the name of the ranch reflected the wartime gaiety, soon being nicknamed the Happy Bottom Riding Club in salute to the growing number of skilled and satisfied riders. Pilots were always her special comrades, and in the natural course of events a stellar array of high-ranking officers appeared at the ranch and soon became her friends. Jimmy Doolittle, a pal from the air racing days, now sported three stars, and he was joined by many others, including the commander of the Army Air Forces, General H.H. "Hap" Arnold.

Thus, it was natural that when peacetime came and Muroc (soon to become Edwards Air Force Base) became the centre for the nation's leading experimental flight testing center, that test pilots would replace the wartime fliers, and the party went on. Pancho's place remained popular for the same reasons it always had--in an area of limited resources, men with heavy responsibilities needed a congenial place to relax. Although many stories about Pancho and her hostesses are told with a knowing wink, it is also true that off-duty pilots love to do one thing above all--talk about flying. And there was plenty of that at Oro Verde.

Pancho was a staunch friend and confidante to many of the young professional fliers of the day--Al Boyd, Pete Everest, Jack Ridley and many others. Those that she liked, that is. Those whom she did not, or who carelessly patronized her, were swiftly and profanely shown the door. With Chuck Yeager, a bond was formed which lasted her lifetime. Recent books and movies have glamorized the friendship between the sonic-busting test pilot and the high-flying hostess, but in truth it began much earlier when Pancho found out that the young captain was also an avid outdoorsman. Several hunting and fishing expeditions, some of which ended raucously down in Mexico, sealed the friendship long before Captain Yeager had been chosen to bring the X-1 supersonic program to its ultimate success. When he did so, on 14 October 1947, Pancho was one of the few who knew about the official secret. Yeager won a free steak dinner for that feat, thereby starting a tradition for all pilots celebrating their first supersonic flight.

Yeager's boss in the flight test world, Col Albert Boyd, was another legendary old-time pilot who had warm regard for Pancho and her accomplishments. After he was promoted and had assumed command of the flight test establishment, General Boyd appeared less frequently at the ranch.

Although he never hesitated to chew her out when her guests flew too close to his base, he remained a respected member of her circle of friends. But after his departure from Edwards in 1952, the good times rapidly drew to a close.

## An Era Closes



Soon after the next commander arrived on the scene, the entire atmosphere began to change. The reasons were many: conflicting requirements, personality clashes, and some genuine misunderstandings. The immediate catalyst was airspace which was becoming increasingly crowded with large numbers of new aircraft being tested, and the private airplanes of Pancho's guests. The borders of the base were already pressing hard upon Oro Verde, and a master plan had already been written calling for it to expand to its present western boundary. Sooner or later, something would have to give. But the times were changing as well. The brash camaraderie of the wartime years was giving way to the straight-laced Fifties, and the casual flying world of the 1940s was evolving into today's relentlessly sober approach. Even the bachelor test pilots in their twenties were becoming married professionals in their early middle age. The Happy Bottom Riding Club was doomed in any event.

It was not long before condemnation proceedings were filed against Pancho's property, on the grounds that the ranch lay on a direct line with a proposed extension of the test centre's main runway. There were genuine air safety considerations as well, and a master plan had already called for the base to expand to the west. But the situation was greatly worsened by a complete lack of rapport between the principals, and conflicts soon escalated into name calling, unjust accusations, and ultimately into a flurry of acrimonious lawsuits. In the middle of the fray, coming at the worst possible time, a night-time fire of unknown origin completely destroyed the ranch complex.

Pancho eventually won a considerable sum in the courts. She established herself on a new spread in another remote area, vowing to rebuild and continue as before. But much of the settlement went into attorney's fees and, at any rate, the psychological blows had been considerable. Pancho had lost not only her ranch and livelihood, but also a lifetime's accumulation of irreplaceable souvenirs and valuables. Perhaps worst of all, though, was the rift with her beloved Air Force. Then, like a relentless Greek tragedy, serious illness struck her. Although the redoubtable woman vowed never to surrender and went on to survive two cancer operations, the old zest for life gradually faded along with her energy. Pancho died, alone and undiscovered, in 1975.

Her son, Bill, became a pilot and owned a flying business in nearby Lancaster. He died in October, 1980, while flying a P-51 *Mustang* not far from the site of the old ranch.

## Epilogue

Of her personality and that clamorous era, little now remains: some concrete foundations and the remains of a fanciful stone fountain near the Edwards AFB firing range; a few photographs. The dim, rectangular outline of a dirt airstrip can still be made out from the air. There is a battered door from the ranch pickup, still faintly lettered, resting against a wall in the Air Force Flight Test Center Museum. But the Pancho stories still circulate freely in the flight community, some titillating, most nostalgic, all now recounted with tolerant smiles. For many years now, the people at Edwards have gathered together on the site of the Happy Bottom Riding Club for an annual barbecue which goes far into the night. And in a hangar in nearby Mojave, Pancho's black-and-red Travelaire *Mystery Ship* is gradually returning to its original splendour.

As always, Pancho had the last word: *"Well ----- it, we had more fun in a week than most of the weenies in the world have in a lifetime."*

## Jean Batten



Jean Gardner Batten, a strikingly beautiful New Zealand woman, became one of the world's most popular and famous pilots when she established several individual flight distance records in the 1930s. Some of her marks would stand for almost half a century, while others she would better on her own. Batten was extremely close to her mother and thrived on parental attention. She also liked the international acclaim she received. Regardless of her public image, however, Batten possessed some dark qualities. Sometimes she used her feminine charms to manipulate men into providing her with the means to achieve her record-setting goals. She was also very eccentric and reclusive, which when coupled with her glamour and fame, was why Ian Mackersey, Batten's leading biographer, dubbed Batten "The Garbo of the Skies."

Batten was born in Rotorua, New Zealand, on September 15, 1909, to a modest dentist's family. From her earliest days, Jean seemed predestined to become a great aviator. In a seemingly serendipitous act, Batten's mother pinned a photo of the famous French pilot Louis Blériot on the wall next to Jean's crib.

Jean was an excellent student. She won several academic prizes and was a gifted pianist. During her teenage years, she developed into an extremely attractive woman, but she often appeared quite aloof. As Mackersey noted, Jean was "a loner: a highly intelligent, solitary person whom few could warm to."



Jean and her mother Ellen had a close bond, partly brought about by living with her mother after her parents had separated. Her mother was an early feminist and influenced her daughter dramatically, passing along her extreme independence and strong-willed nature.

Batten became particularly interested in flight when Charles Lindbergh crossed the Atlantic in 1927. She was also inspired by Charles Kingsford-Smith's transpacific flight the following year. By 1929, she was so anxious to fly that she convinced her mother to approach Kingsford-Smith and persuade him to take her up in his plane, the Southern Cross. Jean flew high above Sydney, Australia, with "Smithy," and from then on, there was no turning back. She was determined to become a top-notch pilot. Her mother, wanting to give her daughter the best opportunities, decided to move to London, one of the era's great aviation centres.

Jean earned her individual pilot's license in London in December 1930. Her immediate goal was to break the solo flight record from England to Australia that aviator Amy Johnson had established earlier that year. The only problem was that she needed a plane. Because she did not have enough money to buy her own aircraft, she decided to try to attract a corporate sponsor. But without a commercial pilot's license, her chances were slim. Furthermore, Jean did not have the \$500 needed to secure a commercial certificate. Fortunately for her, a young New Zealand pilot named Fred Truman, the first of many suitors, gave her the money. It was his life savings. Batten remained romantically involved with Truman just long enough to get her license and then ended the relationship. She quickly became involved with another man, an Englishman named Victor Doree, who gave her the money to purchase her first plane, a bi-wing de Havilland Gipsy Moth.

Batten finally took off in pursuit of Amy Johnson's 20-day England-to-Australia flight record in April 1933. Unfortunately, a sandstorm caused her engine to fail and she crashed in Karachi, Pakistan. Although Jean escaped serious injury, the plane was a wreck. After returning to England, she asked Doree for another aircraft, and when he refused, she stopped seeing him. Fortunately for Batten, the Castrol Oil Company had taken notice of her and bought her another Gipsy Moth.

Batten's second attempt at Johnson's record began on April 21, 1934, but she ran into trouble very quickly. Batten miscalculated her fuel consumption and damaged her plane among a series of radio towers while making an emergency landing outside of Rome. While Batten escaped the flight unscathed, the plane required too many repairs to continue, and she returned to England. There, she

repaired her plane by using the bottom wing from an aircraft owned by her latest suitor, Edward Walter, a London stockbroker who would become her fiancé.

On May 8, 1934, Batten was ready to try again. This time she succeeded. After flying more than some 10,500 miles (16,898 kilometres), she bettered Johnson's record by more than six days. Batten reached Darwin, Australia, with an official time of 14 days, 22 hours, 30 minutes, and became an international hero. Soon after, she broke her engagement to Walter and went on to the next man, Beverly Shepard, an Australian airline pilot, a man who many believed she truly loved. Walter, furious with Jean, billed her for the wing she had used to repair her Moth.

Soon after bettering Johnson's mark, Batten bought a new aircraft, a Percival Gull monoplane, which, with its extra fuel tank, was perfectly suited for long-distance record attempts. On November 11, 1935, Batten took off in pursuit of another record, the best time from England to South America. After flying to Dakar, Senegal, Batten began the most dangerous part of her journey, a 1,900-mile (3,058-kilometer) leg over the treacherous South Atlantic to Port Natal, Brazil. Using only a watch and compass to guide her, Batten made the transatlantic trip in 13 hours, 15 minutes. The entire trip from England, a distance of approximately 5,000 miles (8,047 kilometres), had taken only 61 hours, 15 minutes, a new record. Batten had also become the first woman to pilot a plane across the South Atlantic.

A year later, she was back at it again. On October 5, 1936, Batten climbed into her Gull and set out to better the England-to-New Zealand record. She made it to Australia, the first major section of the trip, in six days and shattered her own record set two years earlier. Then, after waiting a few days for acceptable weather over the Tasman Sea, she left for New Zealand. Batten made it in 10 hours, 30 minutes. The total journey of 14,224 miles (22,891 kilometres) had taken 11 days, 45 minutes, and set a record that would stand for 44 years.

Soon after, Batten faced some personal hardships. During her hero's tour of New Zealand, she suffered a nervous breakdown and went into seclusion with her mother. After recuperating, she travelled to Sydney in February 1937 to reunite with her fiancé Shephard, but on the day she arrived, he died in a plane crash. With the only man she truly loved gone, Batten sunk into a deep depression. It took her mother almost eight months to coax Jean out of her despair and get her to fly again.

In October 1937, Jean set another record--her final one--by flying from Australia to England in five days, 18 hours, 15 minutes. As a result, Batten became the first person--man or woman--to simultaneously hold the solo flight records between England and Australia in both directions.

After establishing her final record, Jean and her mother travelled the world in relative seclusion. Although Jean resurfaced for a while during World War II, she and her mother returned to seclusion after the war. When her mother died in 1966, Jean was heartbroken. She lived in solitude for many years. Despite a celebrated return to public life in 1969, Batten eventually became a recluse again. On November 22, 1982, while living on the Spanish island of Majorca, Batten died of an infection caused by a dog bite; the wound had turned septic and spread to her lungs after she refused medical treatment. Because people on Majorca did not know who she was, Batten received a burial in an unmarked pauper's grave. The world would not learn of her death for several years, and then only after her publisher had launched an investigation as to her whereabouts.

Throughout her remarkable career, Batten received a number of prestigious awards. From 1935 to 1937, she held the Harmon International Trophy, a prize for the most outstanding flight in a given year. She also received the Brazilian Order of the Southern Cross and "The Freedom of the City of

London," among other honours. To this day, many people still remember and greatly admire Batten. Fittingly, New Zealand's Auckland International Airport bears her name.

### **Lowell Bayles**



On September 1st 1931, Lowell Bayles raced over the Shell qualifying course in the Gee Bee "Z" setting an unofficial speed record of 267 mph, and later in the week won the Thompson Trophy. In November of 1931, the Gee Bee "Z" was refitted with a new and more powerful Pratt & Whitney Wasp Sr. engine. It was capable of 314 mph. That same month Bayles made three attempts to break the world's speed record. On his first two attempts, Bayles failed to break the record. On his third attempt he was killed when his Gee Bee spun out of control due to an aileron flutter problem.



### **Milo Burcham**



Born at Cadiz IN, May 24, 1903. Died Oct 20, 1944 Born in Cadiz, but grew up in Whittier CA, at that time a Quaker settlement in the eastern Los Angeles basin. Milo Garrett Burcham learned to fly in 1929 at the O'Donnell School of Aviation at Long Beach and became its chief instructor soon afterward. Much more than just a P-38 test pilot, Burcham unfortunately has never received appropriate recognition because of wartime secrecy.

He was an early-bird, with U S License 5274, and established a world's record in December 1933 at Long Beach CA by flying upside-down for 4h:5m:22s in his new Boeing 100, in which he performed acrobatic shows until 1937. He flew a brand-new Lockheed 12A Electra Junior to fifth place in the 1937 Bendix Race from Los Angeles to Cleveland, which was doubly impressive since F C Hall, the plane's owner, and his wife were aboard, and yet they still came in only a few minutes behind Frank Sinclair in his Seversky racer.

Burcham was hired as a production test pilot by Lockheed in 1938 and because of his extensive experience did most of the test flying on the P-38. He became Chief Engineering Test Pilot for Lockheed, and performed the 55-degree dive from 35,000' in the P-38. He made the first test flights of the P-80 at Muroc Dry Lake in January 1944 as Lockheed's Chief Pilot. Killed in the crash of the second YP-80 a few months later due to a flame-out, he was twice a victim of World War II...first it cost him his life, and secondly, because of rigid secrecy surrounding the P-80, upon his death there was no publicity about the accident or his career.

Milo Burcham article from Lockheed Star Oct. 27, 1944

Milo Burcham took off from Burbank to the west. His P-80 lost power and he crashed into a gravel pit at Victory and Lankershim Blvd. where the Target is today.

## **Routine Job Takes Burcham Milo**

Burcham was mourned this week by thousands of men and women - and boys - who knew him only as a flash of silver against the California skies and by the roar of his swift flight...

The men and women built the ships he helped to perfect and through the years at Lockheed had thrilled at his wonderfully skillful demonstrations of their handiwork...

The boys rode with him-hundreds of them-whenver his flashing ship crossed high above their playgrounds.

Thus they knew him well, these thousands who only watched, and this week when Milo Burcham was laid to rest in Forest Lawn Memorial Park they mourned their hero.

For all who knew him personally, Milo's death in the crash of an airplane he was testing brought a deep sense of grief, and wherever test pilots gathered the Lockheed Chief Pilot was eulogized. He had a host of friends, a legion of admirers, and no enemies.

The end came when Milo took off from the east-west runway at Lockheed Air Terminal and was forced into a low-altitude, down-wind turn, probably by power failure. This flying procedure meant only one thing to other pilots. It meant that the Chief pilot was thinking of the safety of others, as usual. It was his custom.

"To us who considered him the world's smartest pilot," said one flier, "this procedure meant that Milo wanted to avoid even the remotest possibility of a forced landing in areas thick with people, houses, and automobiles.

## **No Expected Trouble**

"Had he taken off as the air-liners were doing, any crash might have injured others south of the field. As it was, he was the only victim. Not that he expected trouble. He just didn't want to subject town folk to even hypothetical danger."

Such consideration was typical of the popular pilot whose career began with the sale of a home-made burglar alarm in 1928 to buy a flying lesson and carried him to achievement pinnacles scaled by few.

Milo always insisted on doing the most hazardous tests himself. It was his desire to help young Army Air Force flyers that prompted development of a special course of P-38 instruction he conducted this summer for the Fourth Air Force.

Despite the fact that stunting brought him early newspaper headlines, whenever the safety of others was involved, Burcham was painstaking as a pilot.

"But," said a fellow pilot, "when he was alone over the desert, I've seen him do some of the damndest things a man ever did with an airplane...stunts even a



bird wouldn't try."

### **Riding Was Favoured**

Milo used to drive his old Ford to the stables, a mile from his home where he kept horses for himself, his wife Peggy, and two sons, Garry, 14, and Vance, 11. From there he would ride "Smokey" 2 ½ miles to a chicken ranch a block or two from the Pilot House where he would tether the horse and complete the journey on a bicycle. Returning, he'd ride the bike to the ranch, the horse to the stables and the Ford to his home.

One of the few injuries this pilot of the worlds fastest airplanes ever had was when "Smokey" slipped on some loose gravel one morning and fell on his master.

To most of the 85 pilots who test Lockheed planes, Burcham displayed the genial personality the public thinks is typical of most fliers. But his intimates knew him as a man of profound depths.

He often took long walks at midnight, pondering some strange problem of flight he had encountered during the day.

### **Leaned to Science**

Burcham was one of the first human beings to peer over the scientific abyss of compressibility...to enter that area of high speed in the air where odd behavior of supposedly immutable laws of physics confounded aviation's ablest minds.

That was in the early days of testing P-38's...when, from 40,000-foot heights, he screamed earthward faster than any other man ever flew.

With the help of Burcham's observations, Lockheed research engineers have overcome flight barriers created by these strange phenomena of super-sonic speed.

Milo's nine years of pre-Lockheed flying experience included barnstorming, competition in national air races, upside-down flying and other stunts.

But, despite the gasps he drew from admiring crowds, Milo never took chances. Every stunt was carefully rehearsed...his plane minutely checked before take-offs.

Though born in Newcastle, Indiana, Burcham considered himself a Californian by adoption. He attended Whittier High School and Whittier College.

### **'Alarm' Opened Way**

The burglar alarm he sold to pay for his first flying lessons was the product of his inventive mind which has created a core f other similar gadgets.

From his well-equipped home workshop Burcham has produced several instruments and devices which engineers have made standard equipment for the Constellation. They were developed on off-hours to answer specific problems he met while conducting engineering test flights of the big transport.

Two of his better-known inventions are a visual oxygen meter that enables a pilot to keep closer check of his oxygen supply in high altitudes and a device, still used, that permits delivery of mail from a plane in flight.

Burcham joined Lockheed in 1937 as a ferry pilot and two years later was sent to England in charge of flight testing at the company's Liverpool division.

Recalled to Burbank, his thoroughness and skill as a pilot brought about his assignment to engineering flight testing where he began testing of P-38 Lightnings.

A visit to the Mayo Clinic to study reactions to high-altitude flying convinced Burcham that decompression of pilots who fly above 30,000 feet was not only desirable, but absolutely necessary. As a result, Lockheed installed decompression equipment for its pilots.

### **Developed Course**

Following his appointment as chief pilot early this year, Burcham developed the unique training course for the Fourth Air Force, flying to bases up and down the Pacific Coast. The same P-38 in which he made the trips was used to demonstrate special flying technique to young pilots of the AAF.

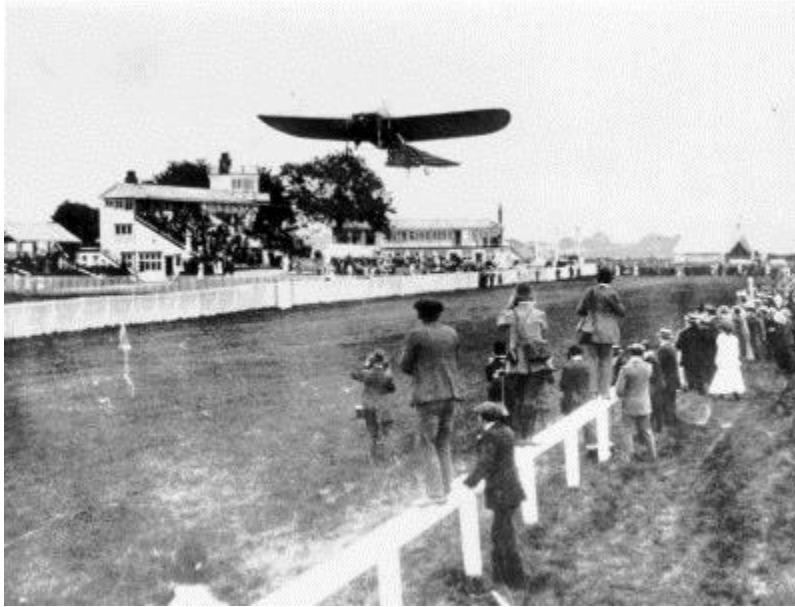
It was a work he loved even better than testing the characteristics of a Lockheed prototype-this teaching others to fly skilfully. His contributions to the science of aviation must be written finally in other chapters at other times, but every pilot knew at that quiet ceremony in Forest Lawn last Tuesday that one of the great fliers of the world had been taken away-too soon.



**Louis Blériot**



Louis Blériot graduated with a degree in Arts and Trades from Ecole Centrale Paris. After successfully establishing himself in the business of manufacturing automobile headlamps, at age 30 he began his lifelong dedication to aviation. In 1907 he made his first flight at Bagatelle, France, in an aircraft of his own design, teaching himself to fly while improving his design by trial and error. In only two years his new aviation company was producing a line of aircraft known for their high quality and performance.



Louis Blériot achieved world acclaim by being the first to fly an aircraft across the English Channel, a feat of great daring for those times. On July 25, 1909, in his Model X125 horsepower monoplane, he braved adverse weather and 22 miles of forbidding sea and flew his machine from Les Barraques, France to Dover, England. This 40 minute flight won for him the much sought after London Daily Mail price of 1000 pounds sterling.

In the 1914-1918 War his company produced the famous S.P.A.D. fighter aircraft flown by all the Allied Nations. His exceptional skill and ingenuity contributed significantly to the advance of aero science in his time, and popularized aviation as a sport. He remained active in the aero industry until his death on August 2, 1936.

## **The Flight**

### ***First Channel Crossing by Air***

At the first light of dawn on the morning of July 25, 1909, Frenchman, Louis Blériot gave his crew the signal to release his small wood and fabric Model XI aeroplane. It crossed the grassy paddock and bounded into the air crossing the cliffs at Sangatte France, near Calais, and ventured out over the English Channel. Travelling at just over 40 miles per hour, and at an altitude of about 250 feet, the little monoplane out-paced its naval escort ship, the Escopette, which carried his wife Alicia. Within minutes Blériot was on his own over the channel and due to weather conditions could not see either coast for part of the flight. Finally, thirty-six minutes after his departure, fighting dangerous cliff-side gusts, Blériot put down on English soil near Dover Castle. It must have been a dramatic scene for the small group of on-lookers as his plane dodged several brick buildings, was tossed about in the wind, and as Blériot cut the motor the craft dropped into a grassy field smashing the propeller and undercarriage. His daring effort had landed him the coveted Daily Mail Prize of 1,000 Pounds Sterling.

Thirty-six minutes was not one of the longer flights of 1909. There had been a number of duration and distance records considerably longer, but no one had yet successfully crossed the channel. Record flights were typically conducted over earth, and not water, so that when problems occurred (and they usually did) one could set down in a field or on a road. Fellow aviator Hubert Latham attempted the

cross the Channel just days earlier (July 19th) and had ditched his Antoinette IV in the channel when his motor quit.

1909 aircraft were extremely unreliable -- the hobby of visionaries and wealthy eccentrics. Most were under-powered and the engines were prone to failure for one reason or another. Aircraft design was more of an art than a science, and control systems were still being invented. There were no airborne radios to call for help, and flight instrumentation was limited.

The day had begun badly and if Blériot had been a superstitious man he probably wouldn't have taken off. He could walk only with the aid of crutches, having burned his foot in an earlier incident. During preparation for takeoff a neighbourhood dog had wandered into the arc of his propeller blade and was killed. His wife did not share his enthusiasm for flight and had begged him not to go. Once in the air his Anzani 3 cylinder motor overheated, as motors of that day were prone to do. Fortunately, luck was on Blériot's side that day and rain showers cooled the motor enabling him to complete the crossing.

A channel crossing is a non-event today, but in 1909 this half-hour flight captured the world's attention. Transcontinental travel was suddenly possible and the protective barrier between England and the European continent disappeared. The British newspapers warned that airplanes flying over the Channel could also be used as instruments of war. "Britain's impregnability has passed away...Airpower will become as vital as seapower," one London newspaper trumpeted. Considering Britain's status as the world's leading military power, these headlines were arresting.



Louis Bleriot (R) and observers and his Model XI after Channel crossing and rough landing.

### **Louis Bleriot: Trial and Error**

Bleriot was first attracted to the problem of flight when he visited the 1900 Paris Exhibition and saw Clement Ader's strange bat-wing contraption, the *Avion No.III*. As a result, he built his own bat-wing aeroplane, but unlike Ader's his had flapping rather than fixed wings. Unsurprisingly, it was not a success and flapped itself to pieces on the ground.

Then, in 1905, Bleriot became acquainted with the Voisin brothers, Charles and Gabriel, who had built several Wright-inspired gliders for prominent *Aero-Club de France* member, Ernest Archdeacon. Their latest model was fitted with floats for towing behind a motor boat on the River Seine. Louis Bleriot commissioned them to build a similar machine for himself. It had a wide biplane tail, connected by side-curtains to form a box-kite, short stubby wings connected by more side-curtains, and a

monoplane forward elevator. Long floats stretched from the elevator back to the tail. He had realised that he still had a lot to learn about flight before he could hope to build a powered machine. Hopefully the glider experiments would solve the problem of aerial stability. A motor could then be added and powered flight attempted. Both gliders were tested by Gabriel Voisin on the Seine near Paris. They both rose from the water, but yawed, dipped and dropped their wings dangerously. Both were damaged by striking the water while out of control. Fortunately the pilot was uninjured and bravely continued with the tests each time the machines were reconstructed. The problem was that the machines only had one flying control: a front elevator. They relied on their own, very imperfect, inherent stability to keep straight and level. The tests continued into 1906 and the third Bleriot-Voisin glider was fitted with an *Antoinette* petrol engine. (The *Antoinette* had also powered the motor boat.) But whether it was flown on floats or on wheels as a land plane, the design remained a failure.



the third Blériot-Voisin glider with Antoinette engine in 1906

When the gliders met with no success, Bleriot decided to pursue his own ideas once more. Unlike most other experimenters of the day, he was particularly attracted to the idea of the monoplane. After Santos-Dumont's successful flights of 1906 he knew flight was a real possibility, and thus encouraged he built a tail-first monoplane, influenced by Dumont's tail-first *14-bis*. It was christened the *Canard* ('duck') because its long 'neck' stretched out in front like a duck in flight. (Since then, all tail-first aeroplanes have been known as canards.) Its wings were covered with varnished paper and it was powered by a 24 h.p. *Antoinette*. It was first tested at Bagatelle on 21 March 1907, and on 5 April Bleriot made a flight of 5 to 6 yards. He made further short hops at Issy on 8 and 15 April but the machine was basically too fragile and was destroyed in a crash on 19 April. Bleriot was unhurt.



The Blériot Canard of 1907 at Bagatelle. The pilot seems to be testing the wing warping: left wing is down and the right wing up

Unlike the Wrights or Otto Lilienthal, Louis Bleriot did not take a careful, scientific approach to the problem of flight, testing and refining each component until a good machine was arrived at. Instead he impulsively jumped from one concept to another until he found something that worked. It was the philosophy of trial and error, and it was something of a miracle that Bleriot survived the numerous early crashes that this method entailed. He always tested his own machines.

After the crash of 19 April he abandoned the canard and built a plane along the lines pioneered by the American, Professor Langley. It had two sets of wings, the one behind the other, and was called the *Libellule* ('butterfly'). The front set of wings had a form of aileron fitted that Bleriot would return to in later designs: the wing tips could be swivelled on pivots to change the angle at which they met the air. However, they worked independently and were not connected to each other, as modern ailerons are. There was no elevator. Bleriot established longitudinal stability by moving his body weight on a sliding seat! The *Libellule* was more successful than the *Canard*. At Issy it managed 25 yards on 11 July 1907, and then 160 yards on 25th, and 150 yards on 6 August. Finally, on 17 September, Bleriot climbed to a height of 60 feet, but he lost control and the machine plunged to the ground. It was destroyed, but again Bleriot was fortunate in not being seriously hurt.



The Blériot Libellule of 1907. It was flown briefly during the summer

Bleriot's third plane in one year was of a type that came to be the standard layout for monoplanes up to the present day. That is to say the engine was at the front near the wings, with the rudder and elevator at the rear on a long tail. The main undercarriage wheels were under the engine and there was a smaller wheel towards the tail. This was completely revolutionary in 1907. But by inspired guesswork, Bleriot had hit on a winning formula. All his future aeroplane designs were variations on this theme. The first of these ground-breaking machines was the sixth aeroplane Bleriot had built (including gliders) and so it was simply called *No. VI*. It was doubly innovative because, in addition to its layout, it had a completely covered fuselage and no external bracing wires - giving it a very modern appearance. It flew 80 yards with a 20 h.p. engine, in November, before crashing.



the prophetic Blériot VI, also of 1907

In the new year, 1908, Bleriot built another, *No. VII*, which similarly crashed, and then another, *No. VIII*, which met the same fate! These planes were covered with rice paper to keep weight to a minimum. Bleriot's tenacity and enthusiasm sprang from his "*passion for the problems of aviation*" - his own

words for his devotion to flying. And his persistence was paying off. His new machines were generally better than their predecessors and in *No. VIII* he flew for 800 yards at Issy. This machine had a 50 h.p. *Antoinette*, and good controls, including large 'modern' ailerons on the trailing edge of the wing. On a modified version, the *VIII-bis*, Bleriot accomplished the second cross-country flight from town to town, on 31 October 1908, the day after Henry Farman had achieved the first! However, Bleriot succeeded in flying back to his starting point, making it the first return cross-country in Europe. The flight was made from Toury to Artenay.

Apart from getting the shape of his aeroplanes right, another great achievement of Louis Bleriot was in designing the modern control system. He linked the ailerons and elevator together so that they were both worked from a central 'joystick', while rudder control was via a bar at the pilot's feet. If Bleriot wanted to climb, he pulled the stick back. If he wanted to yaw right, he pushed his right foot forward. If he wanted to bank left, he moved the stick left. This is exactly how modern control systems work. By contrast, the Wright brothers had linked their wing-warping (in place of ailerons) to the rudder. This was logical, but was not copied.



The Blériot VIII-bis near Dambron during 31 Oct 1908 cross country flight from Toury to Artenay. The wing-tip ailerons are clearly visible.

The little Frenchman made another first, on 12 June 1909, when he became the first pilot to take two passengers up at the same time. The others in the plane with him were Alberto Santos-Dumont and Andre Fournier.

After crashing *No. IX* and *No. X*, Bleriot was facing bankruptcy when he took his *No. XI* to the cliffs at Calais to try and win the £1000 prize for flying across the English Channel. His fortune had nearly all been consumed in his passion for aviation. He needed this flight to succeed.

**J.T.C (John Theodore Cuthbert) Moore-Brabazon (1884-1964)**





Lord Brabazon of Tara was born in England, February 8, 1884 and died in London, May 17, 1964. He first soloed in a French Voisin biplane at Issy-les-Montineaux, Paris, France, in November, 1908.

French F.A.I. brevet #40 was issued to him under the name of Brabazon Moore, on March 8, 1910, before he became a member of the House of Lords in England. British F.A.I. Airplane Pilot's Certificate Number 1 was issued to him by the Royal Aero Club, making him the first person to be licensed in Great Britain as an Airplane Pilot.

In 1909 he made the first live cargo flight by airplane, by tying a waste-paper basket to a wing-strut of his Voisin airplane. Then, using it as a "cargo hold", he airlifted one small pig.

In October of that year Mr. Moore Brabazon won the first all-British competition of L1000 offered by the Daily Mail for the first machine to fly a circular mile course. His aeroplane was fitted with a 60-horse-power Green aero engine. In the same year M. Michelin offered L1000 for a long-distance flight in all-British aviation; this prize was also won by Mr. Brabazon, who made a flight of 17 miles.

Charles Rolls and Lord Brabazon of Tara made an ascension in the first spherical balloon made in England, which was built by the Short Brothers.

In the First World War, he took a leading roll in the development of aerial photography.

Lord Brabazon of Tara died in 1964

### **Clarence Chamberlin**

Born in Ohio, 1893. Died Oct 30, 1976



Clarence Duncan Chamberlin, born in Ohio in 1893, first began flying while working at an aerial sign-towing company, then won his wings in 1918 after enlisting in the Aviation Section of the Signal Corps. After a tour of barnstorming he became a dealer in surplus aircraft sales, as well as a company pilot for Wright Corp.



In 1919, Raymond Orteig, the owner of the Lavish Lafayette Hotel in New York City, had offered a prize of \$25,000 "to the first aviator who shall cross the Atlantic in a land or water aircraft from New York to Paris or Paris to New York non-stop." For seven years, this prize had gone unclaimed, and both Lindbergh and Levine were determined to claim it.

After their unsuccessful negotiations, Lindbergh and Levine parted company. Lindbergh had a plane built to his specifications at the Ryan Aircraft Co. in California. Levine, Bellanca and Chamberlin proceeded to modify the Bellanca for their flight.

During the first five months of 1927, while Lindbergh and the Ryan engineers worked feverishly to produce a suitable aircraft, Levine, who had an overwhelming lead, fought with his pilots, his designer, his navigator and himself. He was an irascible, pompous, difficult man to work for and he lost his advantage by engaging in trivial arguments on how to equip his plane and who should fly it.

In the week of May 15, 1927, three aircraft were in separate hangers at Roosevelt Field in New York waiting to compete for the Orteig Prize: Lindbergh's "Spirit of St. Louis," Levine's "Bellanca" renamed the "Columbia," and Commander Richard Byrd's "America."

The weather over the North Atlantic was stormy and unfavourable --- almost as stormy as the personnel problems which surrounded the "Columbia. " On May 19, with a light rain falling in New York, Lindbergh checked with the weather bureau and got the news that the weather finally was clearing over the North Atlantic. He immediately raced back to Roosevelt Field to prepare the fuelling on the "Spirit of St. Louis." He took off at daybreak that morning and the rest is history.

Levine, Bellanca and Chamberlin, who were still bickering on who would fly where with what, outwardly applauded Lindbergh's achievement, but were devastated by being beaten in the race. Nonetheless, on June 4, Levine, his wife, and a party of friends arrived at Roosevelt Field to see Chamberlin off on a flight they hoped would eclipse Lindbergh's.

Levine was dressed in a regular suit. Unbeknownst to his wife, however, he had his flying clothes stored aboard his plane. Chamberlin climbed into the cockpit and started the plane. Suddenly, Levine broke away from the small crowd of well-wishers, and jumped into the co-pilot's seat as his wife and friends looked on incredulously.

Mrs. Levine screamed "Stop him! Stop him!" It was too late. The engine roared full throttle and Charlie Levine roared into history as the world's first transatlantic passenger.

The flight was harrowing at times because the Bellanca had a tendency to stall and buck. Levine, whose bravery bordered on foolhardiness, was not perturbed by the aircraft's aberrations.

Although he was not a pilot, Levine relieved Chamberlin at the controls a few times during the night, but otherwise enjoyed his passenger status. En route, they flew over the cruise ship Mourclonia, which gave them a spirited welcome. Incredibly enough, they also flew over the U.S. cruiser Memphis, which was returning Lindbergh to America. Some 43 hours after taking-off and travelling a total of 3,905 miles, the adventurous duo finally landed on a small field outside the town of Eisleben in Saxony, now in East Germany.

At Eisleben they refuelled with 20 gallons of fuel brought up by a local farmer and had to use a quart-size coffee pot to fill the gas tank. They were headed for Berlin, but got lost and landed east of the city at the town of Kottbus, where they received a tumultuous welcome. They finally landed at Tempelhof Airport in Berlin the next afternoon to a crowd of more than 100,000 wildly cheering Germans.

Chamberlin designed his own line of Crescent monoplanes, and flew one in the 1929 Air Races, then acquired a diesel-powered Lockheed Vega, in which he set a world altitude record of over 19,000 feet in 1932. He next formed Chamberlin Airline between New York and Boston, but when it seemed doomed for failure, he used its four Curtiss Condors for a barnstorming group during the next five years, plus having his own flight school and aircraft dealerships. When war clouds threaten in Europe, he opened a series of aviation trades schools vital for the war effort. After the war, he served briefly as sales manager for Bellanca Aircraft Corp for a time.



**Robert Carey 1874 - 1959**



Edith Martin, daughter of Bertha Harvey (nee Carey) forwarded this synopsis of the wonderful new book 'A Message from the Clouds', launched at Point Cook RAAF Museum on November 8th, 2004. This comprehensive and graphic biography of Robert Graham Carey adds a colourful, much overdue chapter to the whole saga of our early pioneer airmen and women.

Guillaux made numerous landings to re-fuel during the two-day flight, but despite driving rain and cloud he arrived in Sydney during the afternoon of July 18; his actual flying time was nine and a half-hours. Shortly after this flight, Guillaux crashed the Bleriot and spent some time in hospital with serious injuries. In his haste to return and take up his Reserve Commission in the French Aviation Corps in 1914, Guillaux left the machine on a Sydney wharf, crated and ready for shipment after him. In the meantime, the badly damaged Bleriot remained unclaimed and attracting demurrage fees.

Or it did, until 1915 when a Ballarat garage proprietor named Robert Graham Carey fortuitously heard about this deserted and famous aircraft. It is understood that this information was relayed through his friendship with a young English pilot, Edwin Prosser, then living in Ballarat. Prosser is believed to have said to Carey: "We ought to buy that." And [we] did! They caught the train to Sydney and made a deal with the Sydney manager for the Messageries Maritime Shipping Company, to offset the holding charges on the crated machine. In need of extensive repairs, the battered Bleriot was transported in its wooden crate by ship from Sydney to Melbourne, then overland to Ballarat. There, Carey induced Edwin T. Prosser, who held R Ae C Certificate No 526, to teach him how to fly.

The early adventures of 'rookie' pilot Carey (aka RGC) in the frail Bleriot under Prosser's instruction provides fascinating reading. It was in the time of flying by the seat of your pants' with minimum instrumentation, absence of airfields meant landing in country areas where farmers and the population had their first sight of an aeroplane. Certainly, cattle, horses and sheep were frightened as the huge 'bird' alighted in their paddocks, but passengers and observers spoke excitedly about their experiences, which have been preserved in the birdman's massive scrapbook. The Carey family has in their possession copious documentation and original photos preserving RGC's many ventures that also include his long and most interesting career in motoring.

Once he had mastered the Bleriot, Carey proceeded to fly to places mostly handy to Ballarat such as Bacchus Marsh, and now and then landed on vacant ground at Port Melbourne. He had also become well known to the staff and members of the Central Flying School at Point Cook. Through them he had completed the theoretical and technical course and in just 25 minutes passed with distinction the written examination for an aviator's certificate of competence.

On November 23, 1916, forty-two year old Robert Graham Carey flew his Bleriot monoplane to Point Cook via Bacchus Marsh to undergo his flying test. His two Central Flying School examiners had the power invested in them by the Royal Aero Club of Great Britain to pass student pilots for the Australian Flying Corps and also for civilian operations. The result was a foregone conclusion. RGC flew home the proud possessor of the Australian Aero Club Aviator's Certificate No. 34 as granted to him on that date, signed by Lieutenant Eric Harrison. This was the first pilot's certificate issued to a civilian in Australia; furthermore Carey was the first Australian born pilot to obtain an official commercial flying permit.

As a legally qualified pilot there was no holding Carey back, he continued to fly all around his base at Ballarat to give country people their first introduction to an aeroplane. He also opened the Ballarat Flying School with Edwin Prosser as its Chief Instructor, a position he took over himself at a later date. The flying school must rate as probably the first of its kind in Victoria. Besides the training of pilots, activities included barnstorming, advertising ventures, aerial photography and the transport of mail, freight and passengers.

In all of these Carey offered expertise, for indeed he was an undisputed Australian trailblazer in Civil Aviation during and after World War I.

Considered too old for war service, he was refused admission to the Australian Flying Corps; notwithstanding, Carey gave of his time and talents unstintingly to promote wartime appeals and charities. In 1916, newspaper accounts report Carey's flight in the tiny Bleriot over Adelaide during a fierce storm on an Army Nurses' Day event to boost the war effort. RGC distributed 'a Message from the Clouds' in war bond and enlistment dodgers while piloting his Bleriot. In November 1917, Carey flew his Bleriot with the first Airmail from Adelaide to Gawler and in 1957 was able to attend the re-enactment in South Australia at its 40th Anniversary, aged 83. He handed a bag of mail to the same person who had received that first airmail bag.

After several busy years Carey expanded his operations and the rotary engine Bleriot 50 found itself in dusty retirement due to the scarcity of spare parts. Nevertheless this remarkable antique aircraft was eventually restored and is displayed in the Power House Museum at Ultimo, Sydney.

Early in 1919, the Carey family moved from Ballarat to the Melbourne suburb of Port Melbourne. RGC purchased a church hall and had it transported from Brighton to his private aerodrome, on leased Crown land beside the Port Melbourne Rifle Range. He located the hall next to the fence line beside the Rifle Range Clubhouse buildings well back from Williamstown Road. Carey, Edith and four children lived in the hall that RGC converted into the family residence and office.

Right from the start RGC's motto was 'Safety First'. He considered stunting to be the purview of the fighter pilot and saw no reason to include it during his commercial aviation activities. In his subsequent thirty years of flying Carey experienced his share of forced landings and setbacks, as did his fellow pioneers, yet commendably, it is claimed that there were no injuries received by the 70,000 passengers he is reported to have carried.

Carey's private aerodrome at Port Melbourne, became the roost from which the chickens of Australian commercial aviation emanated to carry names such as ANA, East-West, Ansett, and Qantas, across Australian and international skies.

On March 16, 1919, Carey and the then Mayor of Essendon, Ald. Arthur Fenton, purchased four obsolete Maurice Farman Shorthorn biplanes from the Department of Defence (Point Cook). Carey dubbed them 'Carey's Chickens', which he had derived from the legendary Stormy Petrels, known as

'Mother Carey's Chickens'. RGC's application of this name to his aircraft at the time of their delivery to Port Melbourne arose from references to Carey as 'The Stormy Petrel' because of his storm defying flight over Adelaide in the Bleriot, October 1917.

Part of the Farman acquisition deal was a conversion course to fly Farmans for the purchasing pilot with Lieutenant WH Treloar to be the instructor. A quiet achiever, Harold Treloar was one of the AFC's most experienced pilots who had been posted during WWI to the Mesopotamian Half Flight. Forced down by a faulty engine, he and his Indian Army observer were captured and given a rough time by the Arabs and Turks as prisoners of war. RGC and Treloar became good friends during Carey's instruction on operation and maintenance of the Farmans. Treloar and three other Central Flying School pilots delivered the Farmans from Point Cook to the refurbished landing ground at Port Melbourne on Saturday, April 11, 1919.

Since the Farman's hangar was not yet ready, the four machines were tied down in the open. A huge gale blew across Hobson's Bay and struck the aerodrome causing damage to all the Farmans, two were hit so badly that they were reduced to spare parts. The other two were fully restored and later registered as G-AUCW and G-AUBC. The four Farmans were all composite machines because they had been damaged and repaired during air cadet training; likewise, the remains of RGC's wrecked Farmans, plus the extra engine and parts from the original sale, provided Carey with all the spares he needed for many years.

With the first Commercial (Aviation) Permit, RG Carey inaugurated Melbourne Air Service and for many years Carey made headlines with his Farman shorthorns involved in events all over Melbourne environs and the Victorian countryside. Notwithstanding his news making aerial delivery of Easter Hot Cross Buns to Philip Island, he flew avid race goers to country meetings, promoted community events and carried such cargo as 'Pals' boys' magazines to name just a few of his ventures.

RGC continually used his planes for advertising with painted signage on the underside of both lower and upper wings as well as the rudders and nacelle.

Carey's extensive 'Message from the Clouds' promotion records cover War and Peace Loan flyers, Vacuum Oil Company, Wangaratta Woollen Mills, charity and sporting events, various traders' association shop locally campaigns, Palm and Cubitt brand cars and Velvet Soap. Dodgers (leaflets) were scattered from the plane overhead as a novel marketing device similar to that of towing aerial banners or sky writing objectives today. Mindful of promoting his own aviation and motoring business, Carey periodically included huge captions on his planes such as 'Carey's Chickens', 'Melbourne Air Service' or 'Carey's Auctions'.

Carey's most publicised and ambitious aerial advertising campaigns for the Herald and Weekly times 'Pals' magazine was announced in the Melbourne Herald, on Wednesday, September 22, 1920. The front-page story, with a five-column picture of the 'Pals Plane' with the Carey family in front of it, declared that RGC would begin an epic journey from Melbourne to the Gulf of Carpentaria in the coming week. Sub-titles announced 'Pals' Aeroplane To Cross Australia', and 'Pals' Aeroplane Carries Message To Australian Boys'. Around the Farman nacelle was painted the word 'Pals', and clearly visible as the plane flew overhead, the message: 'Boys' and 'Read Pals' emblazoned across the wingspan. The tour was discontinued at Forbes however, probably due to problems with supply and finance. A journal by Miss Maisie Carey and her mother provides insight into the difficult conditions encountered during long distance motor travel in the late 1920s.

The 'Pals' slogan later became 'Palm' during Carey's comprehensive air tour for the Palm cars company. Various slogans graced the Farman wingspan during Melbourne Air Service years as

Carey drew more and more attention from his advertising ventures. Subsequently, Carey and his Farmans advertised Cubitt brand cars and then Velvet Soap, followed by various promotions for Progress Associations that were keen to see the Farman slogan 'Shop Locally' over their particular district.

Carey was kept busy with Melbourne Air Service activities, developing Melbourne Flying School, grasping every opportunity to offer 'joy' flights throughout Victoria and border towns, passionate to enthuse all contacts with the thrill of the air. He was a capable and enthusiastic public speaker and as such was invited to speak on aviation matters at state and federal government levels, motoring associations and schools while continuing to manage his motoring business and partake in numerous long distance car rallies.

RGC was born in Warrnambool, Victoria and moved with his family to Melbourne when he was 5 years old. At the tender age of 10 began his first business venture carrying wood and coal by wheelbarrow as well as selling newspapers in Port Melbourne. In 1894, aged 20 Carey was the sole proprietor of a carrying firm in Heath Street, Port Melbourne and by 1900 he registered the Port Melbourne Livery Stables in association with his existing hay and corn store. Meanwhile Carey had married Edith Gilchrist in 1899 and built up his team of fine horses and carriages for hire to include a taxi and motor hire service. In 1912 the Carey family moved to Ballarat where he built up a very successful motoring business, learnt to fly his Bleriot, and in 1919 returned to the Port Melbourne district again to further his aviation passion.

With wife Edith, and 6 children, Carey not only ran a thriving business but also involved himself in numerous civic interests. A life member of the Australian Natives Association, belonged to the Ancient Order of Druids, and was awarded a Life Governor membership for services with the Freemason's Homes of Victoria Citizen's Lodge. Carey was among the first members of the RACV and the VACC with many magazine articles applauding his motoring and aviation ventures published in early club magazines. Melbourne and country newspapers constantly found his activities newsworthy and these records have provided a marvellous source of additional information for the RGC biography.

Carey (63) last piloted a plane, flying one of his Farmans from Port Melbourne on the Coronation Day of King George VI, May 12, 1937. About this time RGC and family decided to concentrate their efforts on the motor trade. Carey had sold off one of the Farmans and eventually surrendered the Port Melbourne airfield lease.

After auctioning off surplus stock from Melbourne Air Service, he spent a few years in his motor business at Wangaratta, eventually retiring to the family home in Chelsea where he had stored so many of the aeroplane parts including a Farman engine not sold at the Port Melbourne auction. He indulged his love of auction sales and finished up with a museum cum junkyard, full of weird and wonderful relics, including two tramcars plus an abundance of spare car parts and war surplus.

One of his Farmans was meticulously restored at Mentone by Mr Fred Edwards and recorded on film whilst being flown at Moorabbin 1956 in the presence of Mr. Carey aged 82 years. This Farman is now proudly displayed in the Canada Aviation Museum in Ottawa. It was a great disappointment that the Australian Government of the time did not see fit to purchase this Farman, however we are thankful that she was appreciated in America and is now preserved in Canada.

Thanks to the dedicated efforts of RAAF staff and volunteers using a few original parts donated from Carey's estate, and all other components painstakingly designed and constructed, they achieved a magnificent Farman now exhibited at the RAAF Museum Point Cook. Civilian aviator Carey would

have been overwhelmingly grateful to witness this tribute to the Maurice Farman S11 Shorthorns, home to roost at historical Point Cook.

Robert Graham Carey, the man who learnt to fly in a Bleriot XI monoplane, had lived through two world wars to see the advent of space exploration, with aircraft being invented that a decade later would enable men to walk on the moon. Although modern aviators in the jet age of electronic space machines may claim centre stage over Carey, he was indeed a major player in Australian aviation history and his spirit shines in the stars. No record of the early flying days would be complete without the inclusion of this colourful personality. His was a wonderful work - educating people to air safety.



### **Georges Chavez (1887-1910)**



Italian promoters posted a \$14,000 prize for the first aviator to fly through the Simplon Pass, a height of 6,600 feet, which lay between Switzerland and Italy. Thirteen aviators entered the contest, but the race committee only accepted five who seemed to have the best credentials. One of them was a Peruvian aviator named Jorge Chavez Dartnell (who was referred to France as Georges Chavez). In preparation for the flight Chavez took his Bleriot XI up in a test flight 8,487 feet, breaking the current altitude record.

The race opened on September 18, 1910, but Swiss authorities forbade flying as it was a Swiss holiday. The next day the weather turned bad and for the next four days either the Swiss or Italian side of the pass was clouded over. Chavez took his plane up for a look and was tossed about, "The machine, it was like a toy in that wind," he said later.

On September 23, weather cleared and Chavez decided to make an attempt. Slowly his plane climbed to the top of the pass. Witnesses on the ground reported that he seemed to be hanging onto the controls as the wind tossed his craft violently around. He made it through the dangerous, twisting gorges, though, and headed for a landing at the town of Domodossola on the Italian side. As he



approached the landing field he gave the Bleriot a little gas to get past a road. Then suddenly it happened. The craft was so weakened by the high winds it failed under the strain. "I saw the two wings of the monoplane suddenly flatten out and paste themselves against the fuselage," a watcher said "Chavez was about a dozen meters up; he fell like a stone." Four days later Chavez, age 23, died of massive internal injuries.



## **Jackie Cochran**



During her aviation career, Jackie Cochran set more speed and altitude records than any of her contemporaries, male or female. She not only became one of the world's great aviatrixes but also one of the best pilots of either gender. Throughout her life, Cochran demonstrated an incredible drive; she wanted to succeed at everything she did. Remarkably, Cochran, unlike many famous aviators, did not originally show an interest in learning to fly. In fact, she obtained her pilot's license only so that she could peddle her own line of cosmetics across the country. Nevertheless, Cochran was a true aviation pioneer.

Cochran's early childhood is a bit of a mystery. She claimed to have been an orphan with no exact record of her birth (although some debate the issue) Historians consequently disagree about when she was born, with dates ranging from 1905 all the way to 1913. Although her birth date is uncertain, it is clear that Cochran grew up in poverty in the rural panhandle of Florida.

Despite the mystery surrounding her early years, Cochran's later childhood is a bit clearer. At some point, she began working as a beautician at a local hairdresser's. Because she enjoyed the work, she decided she wanted to eventually start her own line of cosmetics. In 1929, Cochran moved to New York City, where she hoped salon customers would fully appreciate her skills. She also hoped that her move would help her realize her dream of becoming a cosmetics manufacturer.

New York City was kind to Cochran. She got a job at a fashionable salon in upscale Saks Fifth Avenue and customers raved about her. Some even paid her to travel with them. She made good money and was rising well above her early circumstances. Then, while in Miami in 1932, Cochran met millionaire Floyd Bostwick Odlum. He was immediately attracted to her and would eventually ask her to marry him.

It was Odlum who first interested Cochran in learning to fly. Cochran had told Odlum of her dream of starting a cosmetics line and he suggested that she was going to "need wings" to cover the territory necessary to sustain a cosmetics business. Cochran took Odlum's advice seriously and obtained her pilot's license after only three weeks of instruction. For Cochran, flight provided an opportunity for a new life. Although she kept her cosmetics business, to her, "a beauty operator ceased to exist and an aviator was born."

After sharpening her skills at a California flight school, Cochran entered her first major aviation competition in 1934--the MacRobertson Race from London to Melbourne. Unfortunately, she and her co-pilot, Wesley Smith, had to abandon the race because of problems with their plane's flaps. Although Cochran was disappointed, she continued competing. In 1935, she entered the famous Bendix cross-country race from Los Angeles to Cleveland, but once again had to drop out due to mechanical problems. Ironically, in spite of her ambitions, it turned out that Cochran's major accomplishment of the year was the launch of her own cosmetics company.

In 1937, Cochran's luck in the air changed dramatically. She finished first in the women's division of the Bendix and third overall. Cochran also set a national air speed record from New York to Miami in 4 hours, 12 minutes, 27 seconds, and she achieved a new women's national speed record at 203.895 miles per hour (328 kilometres per hour). As a result, Cochran received the Clifford Harmon Trophy for the most outstanding woman pilot of the year. By the end of her career, she would obtain a total of 15 Harmon Trophies.

In September 1938, Cochran demonstrated the full depth of her piloting skills by winning the Bendix outright. She flew a Russian-made Seversky fighter plane to victory in 8 hours, 10 minutes, 31 seconds. Cochran finished first overall, even beating all of the men in the race. Thanks to her victory, she also received the William Mitchell Memorial Award, an honour given to the person who makes the most outstanding contribution to aviation during a given year.



Shortly after her Bendix win, Cochran set several more records. In March 1939, she achieved a new women's national altitude record at 30,052 feet (9,160 meters), and then a few months later, set two new world records for the fastest times over a 1000-kilometer course and a 2000-kilometer course. By the beginning of the 1940s, Cochran had achieved a multitude of altitude and speed records.

When World War II began, Cochran travelled to England to observe how female pilots were helping the British war effort. She had been contemplating the idea of a fleet of women aviators who could fly military aircraft in support of general operations. The idea was to free up men so they could fight in the war, instead of dealing with such tasks as ferrying military planes and providing basic aerial training. While overseas, Cochran saw that women could effectively take on the more routine tasks of military flight, and she lobbied the U.S. government to create just such an outfit.



In 1942, Cochran got her wish. Army Air Force General Henry "Hap" Arnold asked her to organize the Women's Flying Training Detachment (WFTD) to train women pilots to handle basic military flight support. The following year, Cochran received an appointment to lead the Women's Air Force Service Pilots, or WASPs. The WASPs were essentially two groups in one--the WFTD, and another organization called the Women's Auxiliary Ferry Squadron (WAFS), a group responsible for delivering military planes to their base of operations.

The WASPs proved invaluable to the war effort. They transported planes overseas, tested various military aircraft, taught aerial navigation, and provided target towing. Under Cochran's leadership, the WASPs grew to well over 1000 members, but despite their usefulness, the organization did not last long. In December 1944, Congress disbanded the WASPs because scores of male pilots complained they were being put out of work. During their brief existence, the WASPs delivered approximately 12,650 planes and flew more than 60 million miles (97 million kilometres). In recognition of her leadership, Cochran received the U.S. Distinguished Service Medal, the first civilian woman ever to do so.

After the war, Cochran returned to racing and setting records. In 1950, she set a new international speed record for propeller-driven aircraft by flying a P-51 at 447.47 miles per hour (719 kilometres per hour). Then, in 1953, while flying a Sabrejet F-86, she became the first woman to break Mach 1, or the sound barrier. Interestingly, in the late 1950s, as the U.S. human spaceflight program was getting started, Cochran was among 13 women who lobbied to become a female astronaut. The idea, however, did not come to fruition then because of the political volatility of the issue.

In the 1960s, Cochran continued to set records. Many of these new marks came while she was working as a test pilot for Northrop and Lockheed. In 1961, she established a string of eight major speed records in a Northrop T-38. Three years later, she set three new speed records in a Lockheed 104 jet Starfighter. During one of her runs, she flew more than 1,429 miles per hour (2,300 kilometres per hour), the fastest a woman had ever flown.

In the 1970s, Cochran finally slowed down due to a serious cardiac condition. During the decade, she received numerous awards and honorary degrees in recognition of her outstanding accomplishments. In August 1980, after struggling with failing health, Cochran died in Indio, California.

Clearly, Jackie Cochran was an exceptional pilot and an exceptional woman. During her lifetime, she received more than 200 awards and trophies and set more speed and altitude records than any other pilot. In addition to her American aviation awards, Cochran also garnered numerous foreign honours, including the French Legion of Honour and a Gold Medal from the Federation Aeronautique Internationale. Interestingly, Cochran also excelled in the cosmetics business, which she had continued to run. During the 1950s, the Associated Press voted her "Woman of the Year in Business" two years in a row. And, as if these accomplishments were not enough, she also advised the U.S. Air Force, the FAA, and the National Aeronautics and Space Administration, and served as a board member for museums and non-profit organizations. In the end, Jackie Cochran, one of the world's best pilots, influenced the world well beyond aviation. From the 1930s onward, she left an indelible mark on aviation history.



## **Bessie Coleman**



Bessie Coleman, the daughter of a poor, southern, African American family, became one of the most famous women and African Americans in aviation history. "Brave Bessie" or "Queen Bess," as she became known, faced the double difficulties of racial and gender discrimination in early 20th-century America but overcame such challenges to become the first African American woman to earn a pilot's license. Coleman not only thrilled audiences with her skills as a barnstormer, but she also became a role model for women and African Americans. Her very presence in the air threatened prevailing contemporary stereotypes. She also fought segregation when she could by using her influence as a celebrity to effect change, no matter how small.

Coleman was born on January 26, 1892, in Atlanta, Texas, to a large African American family (although some histories incorrectly report 1893 or 1896). She was one of 13 children. Her father was a Native American and her mother an African American. Very early in her childhood, Bessie and her family moved to Waxahachie, Texas, where she grew up picking cotton and doing laundry for customers with her mother.

The Coleman family, like most African Americans who lived in the Deep South during the early 20th century, faced many disadvantages and difficulties. Bessie's family dealt with segregation, disenfranchisement, and racial violence. Because of such obstacles, Bessie's father decided to move the family to "Indian Territory" in Oklahoma. He believed they could carve out a much better living for themselves there. Bessie's mother, however, did not want to live on an Indian reservation and decided to remain in Waxahachie. Bessie, and several of her sisters, also stayed in Texas.



Bessie was a highly motivated individual. Despite working long hours, she still found time to educate herself by borrowing books from a travelling library. Although she could not attend school very often, Bessie learned enough on her own to graduate from high school. She then went on to study at the Colored Agricultural and Normal University (now Langston University) in Langston, Oklahoma. Nevertheless, because of limited finances, Bessie only attended one semester of college.

By 1915, Bessie had grown tired of the South and moved to Chicago. There, she began living with two of her brothers. She attended beauty school and then started working as a manicurist in a local barbershop.

Bessie first considered becoming a pilot after reading about aviation and watching newsreels about flight. But the real impetus behind her decision to become an aviator was her brother John's incessant teasing. John had served overseas during World War I and returned home talking about, according to historian Doris Rich, "the superiority of French women over those of Chicago's South Side." He even told Bessie that French women flew airplanes and declared that flying was something Bessie would never be able to do. John's jostling was the final push that Bessie needed to start pursuing her pilot's license. She immediately began applying to flight schools throughout the country, but because she was both female and an African American, no U.S. flight school would take her.

Soon after being turned down by American flight schools, Coleman met Robert Abbott, publisher of the well-known African American newspaper, the Chicago Defender. He recommended that Coleman save some money and move to France, which he believed was the world's most racially progressive nation, and obtain her pilot's license there. Coleman quickly heeded Abbott's advice and quit her job as a manicurist to begin work as the manager of a chili parlour, a more lucrative position. She also started learning French at night. In November 1920, Bessie took her savings and sailed for France. She also received some additional funds from Abbott and one of his friends.

Coleman attended the well-known Caudron Brothers' School of Aviation in Le Crotoy, France. There she learned to fly using French Nieuport airplanes. On June 15, 1921, Coleman obtained her pilot's license from Federation Aeronautique Internationale after only seven months. She was the first black



woman in the world to earn an aviator's license. After some additional training in Paris, Coleman returned to the United States in September 1921.

Coleman's main goals when she returned to America were to make a living flying and to establish the first African American flight school. Because of her color and gender, however, she was somewhat limited in her first goal. Barnstorming seemed to be the only way for her to make money, but to become an aerial daredevil, Coleman needed more training. Once again, Bessie applied to American flight schools, and once again they rejected her. So in February 1922, she returned to Europe. After learning most of the standard barnstorming tricks, Coleman returned to the United States.

Bessie flew in her first air show on September 3, 1922, at Glenn Curtiss Field in Garden City, New York. The show, which was sponsored by the Chicago Defender, was a promotional vehicle to spotlight Coleman. Bessie became a celebrity, thanks to the help of her benefactor Abbott. She subsequently began touring the country giving exhibitions, flight lessons, and lectures. During her travels, she strongly encouraged African Americans and women to learn to fly.

In February 1923, Coleman suffered her first major accident while preparing for an exhibition in Los Angeles; her Jenny airplane's engine unexpectedly stalled and she crashed. Knocked unconscious by the accident, Coleman received a broken leg, some cracked ribs, and multiple cuts on her face. Shaken badly by the incident, it took her over a year to recover fully.

Coleman started performing again full time in 1925. On June 19, she dazzled thousands as she "barrel-rolled" and "looped-the-loop" over Houston's Aerial Transport Field. It was her first exhibition in her home state of Texas, and even local whites attended, although they watched from separate segregated bleachers.

Even though Coleman realized that she had to work within the general confines of southern segregation, she did try to use her fame to challenge racial barriers, if only a little. Soon after her Houston show, Bessie returned to her old hometown of Waxahachie to give an exhibition. As in Houston, both whites and African Americans wanted to attend the event and plans called for segregated facilities. Officials even wanted whites and African Americans to enter the venue through separate "white" and "Negro" admission gates, but Coleman refused to perform under such conditions. She demanded only one admission gate. After much negotiation, Coleman got her way and Texans of both races entered the air field through the same gate, but then separated into their designated sections once inside.

Coleman's aviation career ended tragically in 1926. On April 30, she died while preparing for a show in Jacksonville, Florida. Coleman was riding in the passenger seat of her "Jenny" airplane while her mechanic William Wills was piloting the aircraft. Bessie was not wearing her seat belt at the time so that she could lean over the edge of the cockpit and scout potential parachute landing spots (she had recently added parachute-jumping to her repertoire and was planning to perform the feat the next day). But while Bessie was scouting from the back seat, the plane suddenly dropped into a steep nosedive and then flipped over and catapulted her to her death. Wills, who was still strapped into his seat, struggled to regain control of the aircraft, but died when he crashed in a nearby field. After the accident, investigators discovered that Wills, who was Coleman's mechanic, had lost control of the aircraft because a loose wrench had jammed the plane's instruments.

Coleman's impact on aviation history, and particularly African Americans, quickly became apparent following her death. Bessie Coleman Aero Clubs suddenly sprang up throughout the country. On Labour Day, 1931, these clubs sponsored the first all-African American Air Show, which attracted approximately 15,000 spectators. That same year, a group of African American pilots established an

annual flyover of Coleman's grave in Lincoln Cemetery in Chicago. Coleman's name also began appearing on buildings in Harlem.

Despite her relatively short career, Bessie Coleman strongly challenged early 20th century stereotypes about white supremacy and the inabilities of women. By becoming the first licensed African American female pilot, and performing throughout the country, Coleman proved that people did not have to be shackled by their gender or the colour of their skin to succeed and realize their dreams.

### **Douglas Corrigan**

Wrong Way Corrigan: *"When I came down through the clouds I noticed I had been reading the compass needle backward."*



*Which all goes to confirm the proverb: It is easier to obtain forgiveness than permission.*

### **Wrong Way Corrigan:**

Douglas Corrigan became a legendary aviator, not because of his accomplishments as a pilot but rather because of a supposed navigational error. In 1938, Corrigan "mistakenly" flew from New York to Ireland--when he was supposed to be flying from New York to California--because he seemingly misread his compass. For Americans, who were caught in the midst of the Great Depression, Corrigan's antic provided a great deal of humor and uplift and he became a national folk hero. To this day, Corrigan's nickname, "'Wrong Way' Corrigan," remains a stock colloquial phrase in popular culture. People use it to describe anyone who blunders and goes the wrong way, particularly in sporting events. Nevertheless, as much fun as Corrigan's incident provides, many people do not understand all the complexities of his story, nor do they appreciate the fact that he was a sound and accomplished pilot.



Corrigan was born in Galveston, Texas, on January 22, 1907. His father was a construction engineer and his mother a teacher. When Douglas was 15 months old, he was already making a name for himself; he won first prize in a local baby contest. Corrigan's father moved his family around fairly often during Douglas's childhood. Eventually, Corrigan's parents divorced and Douglas bounced from one parent to another before he settled in Los Angeles with his mother. There, he began working in the construction industry. At the time, aviation did not seem to be in his future.

Then, on a Sunday afternoon in October 1925, Douglas decided to visit a local airfield. Corrigan watched a pilot take passengers for rides in a Curtiss "Jenny" biplane. Excited at the prospect of taking his own ride, he returned the next Sunday with \$2.50 in hand and persuaded the pilot to take him aloft. Flying over Los Angeles that afternoon, Corrigan was hooked; he was determined to learn to fly. The following Sunday, he returned for his first flying lesson and continued for weeks thereafter. Corrigan also spent time learning everything he could from the field's aircraft mechanics. On March 25, 1926, Corrigan made his first solo flight.

Notably, Corrigan took flight lessons at the airfield where B.P. Mahoney and T.C. Ryan, a team of well-known aircraft manufacturers, were operating a small airline. It was not long before Corrigan got a job with the two men and started working in their San Diego factory.

Shortly after Corrigan began working for Mahoney and Ryan, a new customer approached them about making a special aircraft. Charles Lindbergh wanted them to design and build the Spirit of St. Louis. Corrigan assembled the aircraft's wing and installed its gas tanks and instrument panel.

When Lindbergh made his famous transatlantic flight in May 1927, Corrigan and his co-workers were thrilled, but Corrigan's excitement did not stop there. Inspired by Lindbergh's trip, he decided that he would make his own transatlantic flight someday. Being of Irish decent, he selected Ireland as his destination.

Starting in the late 1920s, Corrigan changed jobs several times. In October 1929, he became a full-fledged pilot when he earned his transport pilot's license. The following year, he moved to the East Coast and began a small passenger-carrying service with a friend named Steve Reich. The two men would land in small towns and convince people to buy airplane rides. Although the operation did fairly well financially, Corrigan eventually grew restless and decided to return to the West Coast. In 1933, he bought a used OX5 Robin monoplane to make the trip home. Back in California, Corrigan returned to work as an aircraft mechanic. During that period, he also began to modify his Robin for a transatlantic flight.



In 1935, Corrigan applied to the federal government for permission to make a non-stop flight from New York to Ireland. Officials denied his application, however, because they claimed that his plane was not sound enough to make a non-stop transatlantic trip. Nevertheless, they did certify it for cross-country journeys. In an attempt to get full certification, Corrigan made several modifications to his aircraft over the next two years, but each time he reapplied for permission, officials turned him down.

By 1937, Corrigan had grown tired of "red tape" and decided to try the flight without official sanction (although he never publicly acknowledged such a decision during his lifetime). His plan was to land in New York late at night, after airport officials had already left for the day, fill his gas tanks, and then leave for Ireland. But various mechanical problems while in route to New York caused him to lose his "safe weather window" over the Atlantic, and Corrigan decided not to risk the flight just then. He returned to California to wait for another opportunity the next year.

On July 8, 1938, Corrigan left California for New York. His official flight plan called for him to return to California, and on July 17, Corrigan took off from Floyd Bennett Field in Brooklyn, New York. He took off in thick fog and headed east because airport officials had told him to lift off in any direction except west since there were some buildings at the western edge of the field. They fully believed Corrigan would turn his plane around and head west toward California once he cleared the airport's airspace. To everyone's surprise, he kept flying eastward. Corrigan insisted that his visibility was so poor that he could only fly by using his compass and claimed his compass indicated he was heading west.

Approximately 26 hours into his flight, Corrigan claimed to have finally dropped down out of the clouds and noticed that he was over a large body of water. Knowing that it was too early to have reached the Pacific Ocean, Corrigan looked down at his compass--and because there was now supposedly more light to see by--suddenly noticed he "had been following the wrong end of the magnetic needle." Within a short time, Corrigan was over Ireland. He landed at Baldonnel Airport, in Dublin, after a 28-hour, 13-minute flight.

When officials questioned Corrigan about the incident, he explained that he had left New York en route to California but had then gotten mixed up in the clouds and flown the wrong way. He also explained about the fog and his mistake with the compass, but they did not believe him. As authorities continued to press him for "the truth," Corrigan finally ended the situation by replying: "That's my story." After failing to sway him from his explanation, officials released Corrigan. The only punishment he received was a brief suspension of his pilot's license, which lasted only until August 4, the day he returned to New York via steamship.

Corrigan returned to the United States a hero. People loved his audacity and spirit. They also had a great deal of fun with the obvious humour of his situation. The New York Post, for example, printed a front-page headline--"Hail to Wrong Way Corrigan!"--backwards. Corrigan also received a Broadway ticker-tape parade with more than a million people lining the street, more people than had turned out to honour Charles Lindbergh after his transatlantic flight.



Corrigan lived a fairly simple life after his famous flight. In the 1950s, he bought an orange grove in Santa Ana, California, and lived there for the remainder of his life. During the 50th anniversary of his flight, some newspapers began reporting that he was going to admit to having flown to Ireland intentionally, but he never publicly acknowledged that fact. Corrigan died on December 9, 1995.

Although Corrigan never admitted that his story was a ruse, most people believe that he purposely set out to bypass authorities and accomplish his dream of a transatlantic flight. Despite the humor that his story has provided, it is worth noting that Corrigan flew across the Atlantic during the early years of transoceanic flights, something that only the bravest and best aviators of the day attempted. Corrigan deserves recognition for such a daring achievement, even though he had to accomplish the task in such an unorthodox manner.