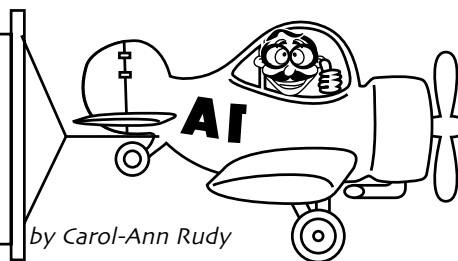


The History of Aviation in South Florida— its Planes, Pilots, & Peculiarities



by Carol-Ann Rudy

Part One of a Six-part Series

BLIMPS, HANGARS, & CLIPPER SHIPS

Most residents of South Florida have seen their share of blimps, also called dirigibles. In the past they were sometimes called air yachts. Blimps have a long history; in the 1920s and '30s they were thought to be mainly for the rich to travel in great comfort across the oceans. When World War II loomed on the horizon though, they had another use: the military used blimps as sentries along the coast, protecting against enemy ships and submarines.

In 1917 in Key West, a 70-foot high, 274-foot-long hangar was built as a U.S. Navy blimp hangar. It was moved to Opa-locka in World War I and later became a landmark for many years as home to one of the Goodyear blimps before being bulldozed in 1995 after 78 years.

During World War II, about 1944, a U.S. Coast Guard base was built, the Richmond Naval Air Station, on the site of today's Metrozoo. This base contained the three largest aircraft hangars in the world, so high they were reputed to create their own atmosphere. World War II was just over in 1945, when a hurricane struck. It caused a fire that destroyed the huge hangars. Twenty-five blimps, 366 airplanes, and 150 automobiles were destroyed. The base was closed. After the war, the blimp gave way to faster aircraft, and became an effective advertising tool.

Dinner Key is the birthplace of international commercial aviation. Many celebrities including President Roosevelt—the first president to fly while in office—left from the Dinner Key Hangar. This hangar and two others are still in existence as part of the Dinner Key Boat Yard. One of the others was a Coast Guard hangar, and today houses the "Shake-a-Leg" program.

The Gulfstream hangar, said to be the oldest existing building at Miami International Airport is still in use for storage. It was originally built by Pan Am in Key West but dismantled in 1928. It was shipped piece by piece to Miami where it was reconstructed at its present location.

According to Webster's dictionary, a clipper is "a ship with a sharp, forward-raking bow and masts raking aft, built and rigged for fast sailing; called also clipper ship." But in the 1930s Pan Am built a fleet of *flying* clipper ships, also called flying ships, flying boats, or seaplanes. Thus began what may have been the most romantic era of American aviation.

Igor Sikorsky designed and built the first American seaplane. He had come to this country after escaping the Russian Revolution in 1917. Pan Am's Sikorsky S42 was the first Clipper Ship to be built in 1931 and was named by Pan Am's president Juan Trippe for the fast sailing ships of the previous century. The first to cross the Atlantic was *The Yankee Clipper*, followed by *The Dixie Clipper*.

A Martin 130 was known as *The China Clipper* because it transported airmail across the Pacific ocean beginning in 1935.

The third model of plane that was designated a Clipper was the Boeing 314; its maiden flight took place in 1938. It was the largest commercial plane of its day.

In World War II the flying boats were converted and used to transport troops and cargo for the war effort. By the time the war ended, advances in avionics made the clippers obsolete and they were retired. However, until it closed its doors to business, Pan Am named its land-based planes Clippers, continuing a great tradition.

sources available upon request

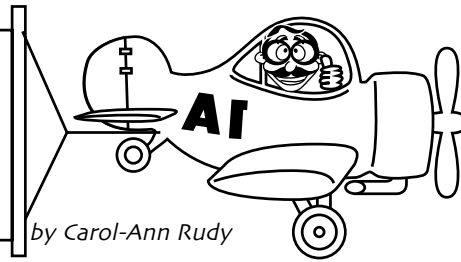
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The History of Aviation in South Florida— its Planes, Pilots, & Peculiarities



by Carol-Ann Rudy

Part two of a six-part series

PLANES, PIONEERS, & ENTREPRENEURS

South Florida has seen its share of aviation pioneers and entrepreneurs. Among them, Glenn Hammond Curtiss, who has been ranked next to the Wright brothers in importance in the early history of aviation. He was born in Hammondsport, New York in 1878. After a successful career building and racing motorcycles, he built dirigibles and planes. He designed and built the first flying boat in 1911. He went on to become famous as an aviator and inventor. He was issued "Air Pilot's License #1" in this country and "Air Pilot's License #2" in France. Curtiss teamed with Alexander Graham Bell in a group called the "Aerial Experiment Association," finding ways to make flying safer and faster. One of the planes that he designed and built was called "The June Bug." Another was "The Jenny"; most pilots in World War I learned to fly in "The Jenny."

By 1923, Curtiss was 45 and a millionaire. He moved to Miami and opened a flying school. He bought land and along with a rancher named James Bright turned it into Hialeah, Miami Springs, and Opa-locka. He went on to build an airport in Opa-locka, later giving the airport to the government.

One of the most significant of many contributions to aviation by Curtiss was a superior system of ailerons. The Wright Brothers had developed a system of wing warping to turn and bank the aircraft, which actually required bending the wing itself. Curtiss installed ailerons at the trailing edge of the wings, between the

upper and lower wings. Still the standard today, the ailerons are attached to the pilot's seat and when used with the rudder enable a pilot to make controlled turns.

Curtiss died in 1930 of appendicitis at 51. He was given the Distinguished Flying Cross medal from the United States Government in 1933, three years after his death, and declared an Aviation Pioneer.

Hugh Robinson, engineer and retired pilot, joined with his good friend and partner Curtiss in his real estate ventures as well as his aviation interests. Robinson owned and lived in the first house built in Opa-locka. In 1928 Curtiss developed the Curtiss Aerocar, the precursor of today's travel-trailer. Together, they started the Aerocar Co., the town of Opa-locka's first business. According to local writer Dr. George Vergara, author of *Hugh Robinson: Aviation Pioneer*, the company built the custom automobile trailers using the same wooden frame and fabric technology developed for early airplanes. (This Aerocar should not be confused with another product of the same name by Moulton B. Taylor.) In 1933, Robinson moved Aerocar to Coral Gables, assembling his trailers at a LeJeune Road site now occupied by a Publix supermarket. The plant closed in 1939, its sole product supplanted by fiberglass trailers. But this wasn't Robinson's greatest achievement; like his friend, Glenn Curtiss, he too was awarded the honor of being named an Aviation Pioneer.

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The History of Aviation in South Florida— its Planes, Pilots, & Peculiarities

Part three of a six-part series

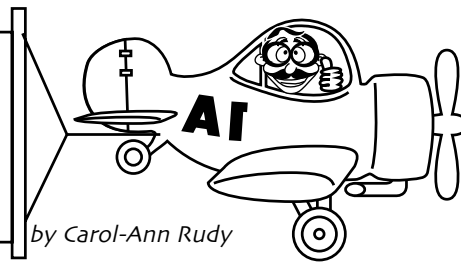
THE AIRLINES' SPECIAL PLACE IN SOUTH FLORIDA HISTORY

In 1911, Howard Gill brought a Wright brothers' aircraft to Miami, heralding the beginning of commercial aviation in South Florida.

Pan American Airways was founded in 1927 and became one of the largest airlines in the world, winning a contract for mail carriage from Key West to Havana. It moved its base from Key West to Miami in 1928 to take advantage of better railway connections. It used flying boat equipment, establishing a seaplane base on Dinner Key, the site of today's Miami City Hall, in Coconut Grove. The demise of Pan Am came about when deregulation was passed and the airline suddenly found itself debt-ridden. It filed for bankruptcy in 1991 and has had several resurrections since in smaller versions.

Eastern Airlines began its life as Pitcairn Aviation, establishing the first air service between Miami and the north in 1928. Initially, Pitcairn like Pan-American, concentrated on carrying the mail, but by 1930 began developing its air passenger service. One of the principals of the company was the WW I hero Capt. Eddie Rickenbacker for whom the Rickenbacker Causeway is named. He was linked to the development of Eastern Airlines throughout the history of that company, where he served as its president. After a long history of success and internal strife, Eastern was finally forced into bankruptcy in 1989, eventually closing its doors.

The two other major airlines in South Florida were National Airlines and Delta Air Lines.



by Carol-Ann Rudy

National began life in 1934 with Miami as its home base. It extended its routes to become an international as well as national carrier, and was eventually acquired by Pan American in 1980. Delta's history began in 1928. Still in operation today, it supports domestic and worldwide destinations daily with main hubs at Cincinnati, Atlanta and Dallas.

Chalk's International Airlines was begun by Arthur B. "Pappy" Chalk in 1917. He first set up business as the Red Arrow Flying Service with a Curtiss F flying boat from the docks of the Royal Palm Hotel on the bay at Flagler Street. After WW I the name of the company became Chalk's Flying Service, operating out of Watson Island, which continues to be the main operating base of the airline today. Through the years the passenger list has included many celebrities: Julio Iglesias, Don Johnson, Jimmy Buffet, as well as famed author Ernest Hemingway and many Hollywood actors and actresses. It holds the honor, along with KLM Royal Dutch Airlines, of being the oldest continuously operating airline in the world.

Following WWII, the airlines expanded their fleets, their operations and services, adding more routes. By 1960, Eastern Airlines was the largest single employer in the county. The fortunes of the four major airlines in South Florida seesawed between prosperity and frugality in the years after WWII, but the aviation industry remains one of the dominant economic forces in South Florida today.

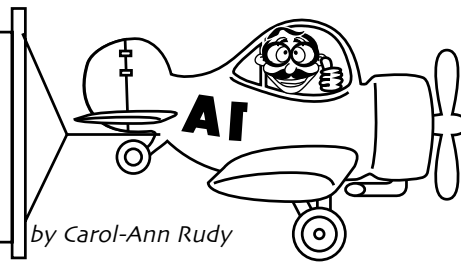
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The History of Aviation in South Florida— its Planes, Pilots, & Peculiarities



by Carol-Ann Rudy

Part four of a six-part series

THE WARS INTERVENE

A significant difference in attitudes about aviation took place between the 1st and 2nd World Wars. The "gentlemen's code" of chivalrous behavior that had existed between pilots on both sides of a conflict disappeared in WW II as aviation became a real combat force, no longer simply employed to scout the enemy's strengths.

When the U.S. entered WW II, there were only twelve aircraft that could carry payloads across the Atlantic: nine Pan Am Clippers and three more that Pan Am had sold to Great Britain. All were taken over by the U.S. government, along with its crews and operations as part of the U.S. military. A great effort to deliver tons of supplies and ammunition overseas began. The push to produce and deliver war-planes had already begun.

The U.S. Navy used new weaponry, which included blimps and anti-submarine planes to combat the German presence in the Atlantic. The Germans had discovered how vulnerable Allied shipping was to sinking by their U-boats; they sank 24 ships off the Florida coast in a four-month period in 1942.

In South Florida as elsewhere, Civil Air Patrol units operated as enemy aircraft spotters. American soldiers and aviators trained in South Florida along with some British and Russians, boarding in 342 hotels converted to barracks on Miami Beach.

According to one source, perhaps a tenth of all American WW II pilots and many airframe

and powerplant mechanics trained at the Embry-Riddle School of Aviation on County Causeway. At the beginning of the war, only 160 women in the United States possessed a commercial pilot's license. Two of those taught at Embry-Riddle; by 1943, twenty-five were serving as flight instructors at the Miami headquarters of the school.

Training in the Miami area included blimp bases, navigation and flight schools, and coastal patrols. Blimp bases were built in South Florida, including Richmond Naval Air Station and Opa-locka, part of a string of blimp bases from New Jersey to Brazil.

The current Fort Lauderdale-Hollywood International airport was the Naval Air Station Fort Lauderdale in WW II, which had been developed in 1942 from the Merle Fogg Airport. Naval aviators, supporting aircrew, and ground maintenance personnel were trained there. Even a former U.S. president, Ensign George H.W. Bush, trained there as a pilot in 1943.

The transformation of South Florida and particularly Miami into a training base and departure point for the theatres of war meant that thousands of military personnel and government officials were exposed to the appeal of the area. Many returned after the war, to live and work. The growth of aviation continued to accelerate following the end of the war, and with the expansion of airport facilities has been instrumental in the development of South Florida as a major year-round tourist destination.

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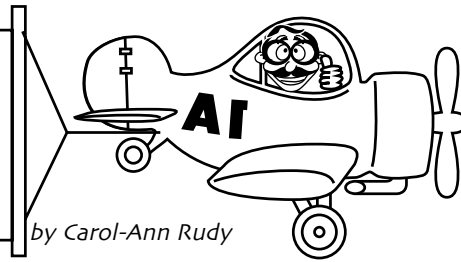
The History of Aviation in South Florida— its Planes, Pilots, & Peculiarities

Part five of a six-part series

BARNSTORMERS!

Webster's dictionary provides this definition of a barnstormer: a free-lance aviator. Barnstorming is defined as: to tour the country giving short airplane rides, exhibitions of stunt flying, etc: so called from the use of barns as hangars. In fiction and movies, it has been romanticized as one aspect of flying where the individual pilot, as much as the plane, may be the center of attention.

In the early days of flying when pilots weren't busy, they would go on tour, "barnstorming" from one town to another. Many of the pilots were ex-military who wanted to stay in aviation. They put on exhibitions for people who had probably never seen an airplane, performing stunts with daredevil bravery. Sometimes they took part in air races; sometimes they walked on the wings of the plane, hung on a single rope from the plane, or parachuted. Pilots had even been known to fly through the open doors of barns! As can be imagined, many pilots were killed. The Air Mail Act of 1926 governing the altitude at which pilots were permitted to fly discouraged the more outrageous stunts. Many air shows actually took place on a farm and the audience would sometimes congregate near a barn to watch the show. Many people called the show The Flying Circus. They raised money and brought airplanes to the attention of potential investors.



by Carol-Ann Rudy

A *Miami Herald* article in 1996 details a typical episode that took place in 1911 with Opa-locka resident, Aviation Pioneer Hugh Robinson riding the train from Salt Lake City to Rapid City for a show. His disassembled airplane, an unwieldy contraption called a Curtiss pusher, is packed into four boxes. Robinson and his mechanic must reassemble it at each stop. During that trip, he makes the first two flights in South Dakota history. On the second stop, George Vergara, author of *Hugh Robinson: Pioneer Aviator* writes, "Robinson had gained an altitude of about 400 feet when stormy weather and darkness caused him to make a forced landing in the middle of a Sioux Indian camp. As he was landing, a delivery truck drove into his path and sheared off part of one wing. Robinson was thrown clear and escaped with only minor scratches. He found himself greeted by a group of Indians in full headdress. Robinson was one of the luckier pilots of his day, since he didn't get killed."

Arthur B. "Pappy" Chalk of Chalk's Airlines was another barnstormer, crossing the south and west of the country with a Curtiss-Wright "Jenny" before settling down in Miami to establish his air service.

Today, visitors to many airshows in Florida and across the country can participate in barnstorming—simply by paying the price of a ticket to ride in an authentic vintage aircraft.

sources available upon request

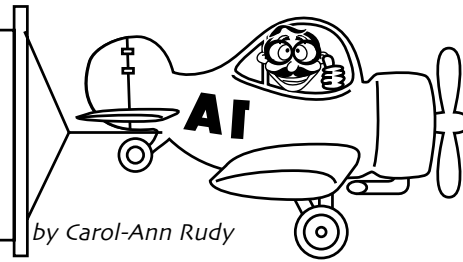
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The History of Aviation in South Florida— its Planes, Pilots, & Peculiarities



by Carol-Ann Rudy

Last in a six-part series

FIRST FLIGHTS OVER SOUTH FLORIDA

South Florida has had its share of "firsts" in aviation history. Here are a few:

Aeromarine Airways began the first international airline by 1920, flying a plane named "Ponce de Leon" between Key West and Havana in one hour and 10 minutes.

Eastern Airlines, beginning as Pitcairn Aviation, established the first air service between Miami and the north in 1928. Miamian M.K. Lee made the first 1500-mile nonstop flight in 1928 from Miami to New York in 11 hours 10 min. A six-passenger flying boat was to have made the first nonstop journey in 1920, but because strong head winds slowed its speed, the plane was forced to put down for one hour and 45 min. It was still greeted with excitement upon its arrival in New York. The limit of the fuel capacity of this plane was 400 gallons, and the passenger compartment stored a portion of that amount.

In the 20's, Pan Am president Juan Trippe obtained a contract from the federal government to fly mail from Key West to Camp Colombia, Havana, Cuba. It was the first contract for the carriage of mail to a foreign country from the U.S. Trippe had bought two Fokker planes and had a ground crew preparing an airport at Meacham Field in Key West. He had a deadline to meet—Oct. 19, 1927—to begin the service. Although two runways had been completed, heavy rain had been falling for two days and the airport had become a

swamp. One of the Fokkers was flown to Miami, but couldn't land in Key West because of the swampy condition of the runways. Then it occurred to Trippe to use a seaplane to fly the mail and still meet the deadline. He talked pilot Cy Caldwell into making the flight for \$250 with La Niña, a Fairchild FC-2 floatplane. It belonged to the West Indian Aerial Express of the Dominican Republic and was chartered for \$145.50. Finally, at 8:04 a.m. on Oct. 19, 1927, the seaplane took off with Caldwell at the controls from the Gulf of Mexico beyond where the Pier House now stands. He landed in Havana in a little more than an hour and unloaded 30,000 pieces of mail. Caldwell resumed his planned vacation trip, having won a place in American aviation history. In 1928, Pan Am moved its terminal to Dinner Key in Coconut Grove. Then on Dec. 1, 1930, the very first commercial international flight took off from Dinner Key for Panama.

By 1935, Florida was the leader in aviation. Miami had become the largest airport of entry in the world, processing international air commerce.

World War II accelerated South Florida's ascendancy in aviation, with many thousands of airmen and soldiers passing through, then returning after the war to its shores.

Lastly, National Airlines began the first domestic jet passenger service between New York and Miami in 1958.

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