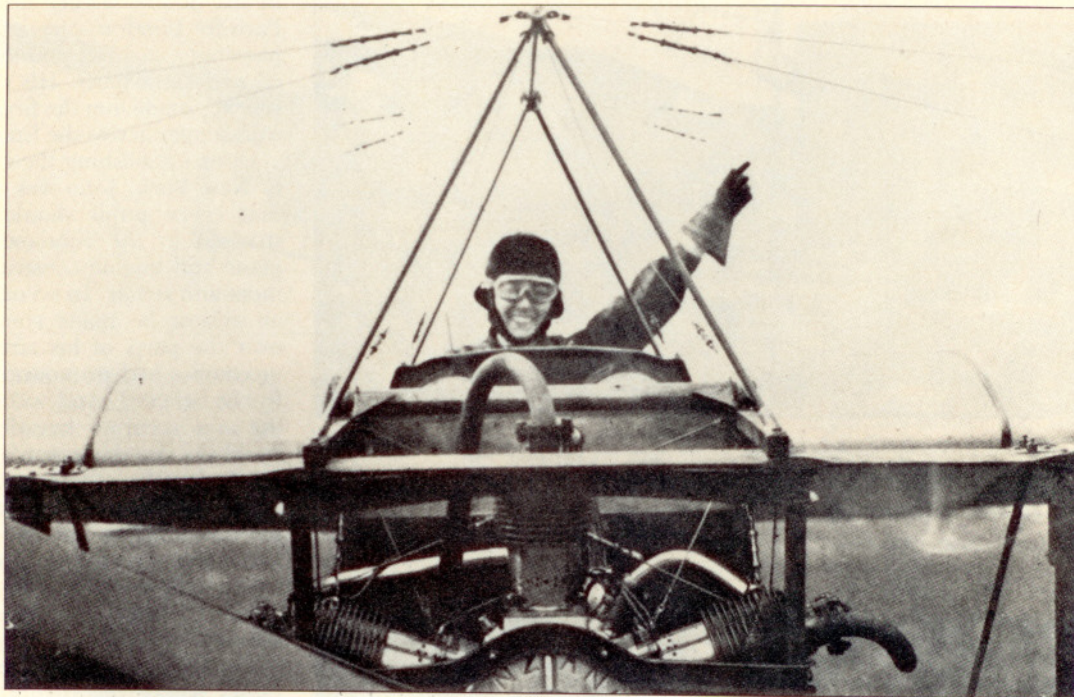


America's First



Flight Academy

BY JULIE OPELL KLYM

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OK. You've decided to learn how to fly. No matter where you live in the United States, you more than likely have several nearby flight instruction schools to choose from. You just decide which one, then away you go, on your very first lesson, you're flying.

But what would you have done if you wanted to learn to fly in the early days of aviation? Flight schools were not plentiful at that time. In fact, many Americans had to go to Europe to learn to fly.

However, in 1911, two brothers from Salvador, John and Alfred J. Moisant, opened the Moisant Aviation School in New York, which they claimed was the first of its kind in America, and which was dedicated to, in Alfred's words, "raising aviation in the United States from its condition of stagnation or worse to the plane it occupies abroad. The long-awaited American aviation school that should graduate competent and thoroughly taught licensed pilots has been established."

Situated at Garden City, N.Y., the

Hempstead Plains aerodrome of the Moisant Aviation School contained about 1,000 acres absolutely unobstructed by tree, fence, house or post of any kind—a vital factor in the instruction of those days. Permission to fly over nearly 5,000 acres more of the same kind of land adjoining the aerodrome had also been obtained for the students.

Billed as the finest flying ground in the United States, the aerodrome was only 20 miles from the heart of New York City, and the transportation facilities to it were "unexcelled, both by automobile and electric train."

Alfred wrote that he was perfecting plans to build a five-kilometer automobile track within the school aerodrome so that "speed contests between motorcars and aeroplanes may be held on the school course."

The cost of the program, which lasted a minimum of five weeks and as long as the student wanted at no additional cost, was \$750. This covered instruction, the use of a plane, gas and oil. How-

ever, a \$250 breakage deposit was also required.

"We do not believe that anyone can learn, with thoroughness, the details of aeroplane, construction, repair, adjustment and flight in less than five weeks. It may take longer, depending entirely on the aptitude of the pupil, but certainly it will not take less," John Moisant wrote.

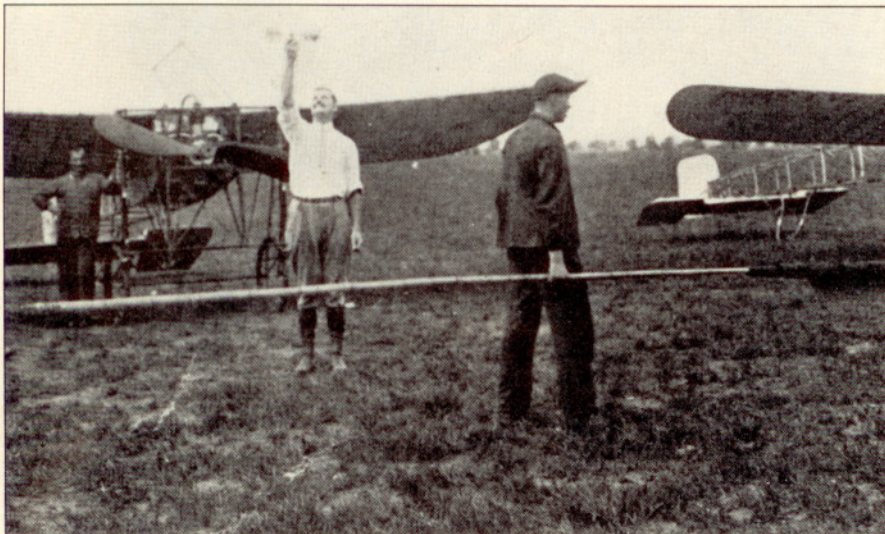
At foreign institutions, a student contracted for 30 hours, which were stretched over an equal number of days. If he remained beyond that time, he had to pay for the additional time.

John Moisant well knew about foreign institutions, for he learned to fly in France at a factory school using a 40-mph monoplane. Already an expert mechanic, he quickly mastered the principle of flight. The fourth time he left the ground after completing his instruction, he flew with a passenger to Issy les Moulineux, a distance of 37.5 miles. This flight, made straight across the heart of Paris, was claimed to be the first cross-country passenger-carrying flight

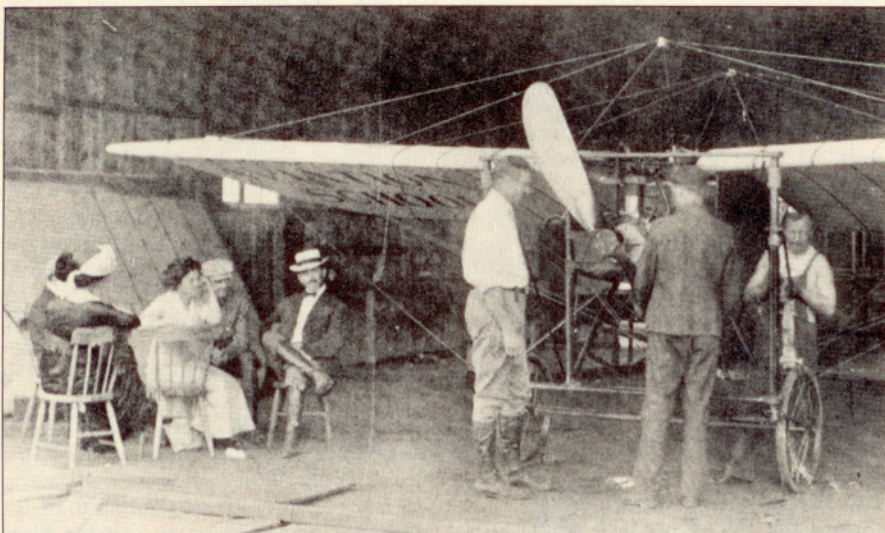
Miss Mathilda Moisant waves from the cockpit of a 50-hp Moisant "advanced" trainer which cruised up to 65 mph.



Three Moisant 30-hp monoplanes line up for students' first flights. This "supervised solo" method used airplanes of limited speed and altitude.



Talk about getting current runway winds. Moisant chief pilot Houpert used an anemometer to check conditions before sending students off to fly.



The "complete" school of flying included two weeks of ground school which included theory of flight and heavy emphasis on what makes an airplane work.

ever made. During the journey, his monoplane reached a height of 3,650 feet.

The sixth time John left the ground in his double-seater, he started from Paris for London, carrying a 187-pound passenger and 302 pounds of gasoline, oil and extra parts. His success in that journey made him the first pilot to carry a passenger across the English Channel.

Upon establishing the aviation school in New York, John was most insistent that every pupil should be well instructed in the fundamentals of airplane and engine construction, adjustment and repair. In no other way could an aviator be made competent to go over the parts of his aircraft after his mechanics had pronounced it ready to fly, he believed. And without this training and accurate knowledge, no one could say that his aircraft was in flying condition.

The Moisant course of instruction, therefore, began with the equivalent of a modern-day ground school. For a week, daily lectures were given on the theory of flight and the basics of the airplane.

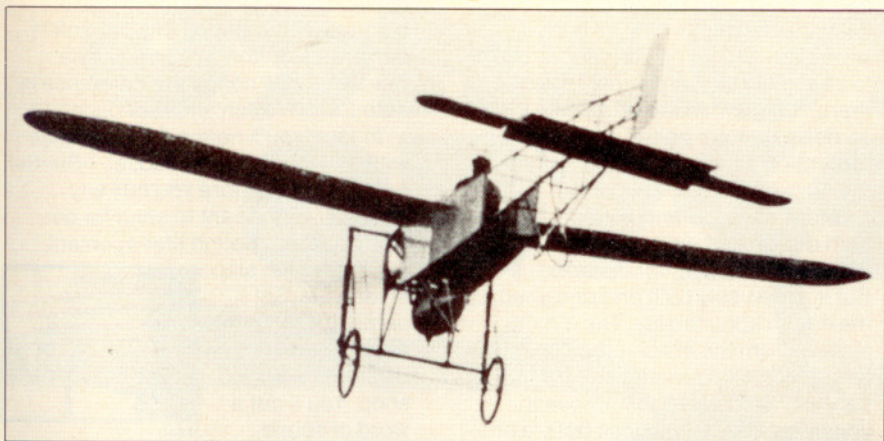
The second week was spent in a laboratory where the theory was applied. Here the students dissected and assembled the various parts of an airplane and its power plant, familiarizing themselves with the purpose and mechanical detail of every part before they were allowed to set a foot in anything that flew.

The third week's work was the practical handling of an airplane and was taught in the early-day version of a flight simulator. The airplane was like the one the student would eventually fly, only this machine was belted to the hangar floor so that the engine could run and the propeller turn.

With the rush of air from the propeller beating on his face, just as it would when he was actually flying, the pupil was taught the use of the controls and the engine. Thus, he familiarized himself with the controls and learned how to operate his machine instinctively, "just as one rides a bicycle or runs a motor-car."

Having completed these three weeks' work, the student was ready to put into practice what he had mastered in theory. The thousands of acres of unobstructed land became very important to the student at this stage, for although he finally entered the outdoor or actual flying department, he barely got off the ground. The first machine use for this phase of instruction was very strong, very heavy, and was not designed to permit the student to get more than two or three feet off the ground.

During this phase, the student did learn, however, to guide his machine on



a straight line and in designated curves while it was on or just slightly above the ground. Once mastered, it ensured his ability to fly in a straight line.

Under the watchful guidance of the chief pilot, the student then advanced to the modern-day equivalent of a supervised solo. In a lighter airplane, he made a number of straightaway "jumps" of varying length, whose altitude was regulated by the chief pilot via a special elevator adjustment.

Instruction in making left- and right-hand turns and in gliding followed—in a 30-hp Moisant monoplane for the beginner, with the more advanced student flying a 50-hp version.

With the 50-hp engine turning over at 1,000 rpm, the propeller developed a thrust of 360 pounds and yielded a normal speed of between 60 and 65 mph. Cost of a two-seater was \$6,500 for interested students.

As for the monoplane's construction, the landing chassis was made of hickory, the balance of the fuselage was second-growth ash and the landing cradle was bamboo. The highest grade

of piano wire was used to wire the fuselage, and the French three-ply rubber impregnated silk covered the wing and tail plane. Either laminated mahogany or walnut were used for the propeller.

"The pupil is quite capable of graduating from the School and trying for his pilot's license almost before he himself realizes it," Alfred wrote.

Although the methods and availability of flight instruction in this country have drastically changed, as well as the technology and equipment, John and Alfred Moisant's dreams of flying and sharing it with others hasn't.

"To become a companion of the bird; to search the skies and from great heights to look down upon the flattened earth while his monoplane bears him where his whim directs," Alfred wrote, "to realize, to the throbbing of the motor and the song of the propeller, the dream of man throughout the centuries; all of these and more are what flying mean. And there is none, except the mentally or physically unfit, who may not taste its delights."

Some things will never change. □



Moisant students had to learn something no present day aspirant does—they had to learn how to build an airplane before they were allowed to fly one.