

LINCOLN BEACHEY'S LAST RIDE

by E.D. "Hud" Weeks



Editor's Note: Member "Hud" Weeks writes his agreement with the old adage — "one photo is worth a thousand words". In this article, he presents many rare photos of America's first great acrobatic pilot and his mounts. "Hud" disclaims any attempt here at a biography of Beachey; instead ties together this photo series with highlights on Beachey's short meteoric career with most emphasis on its ending.

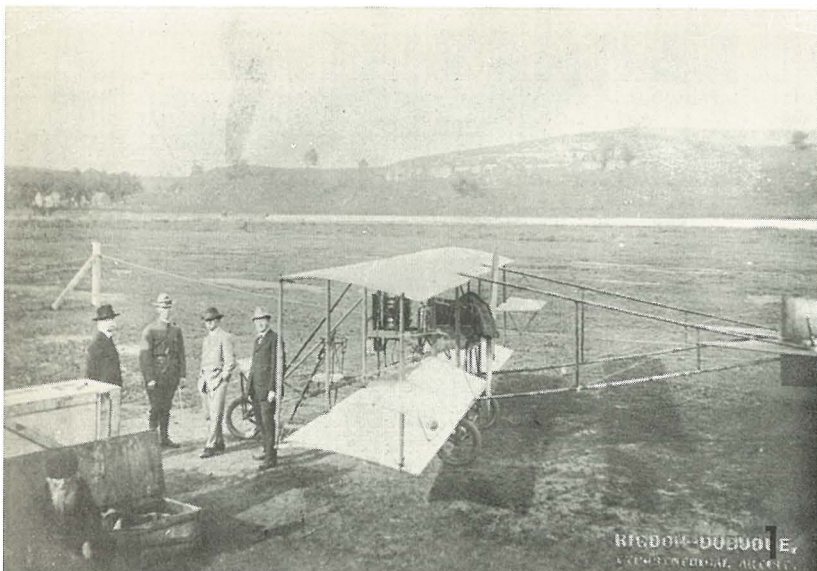
BEACHEY, 1910-11

Between 1905 and 1909, Beachey became a famous airman for his daring exhibitions throughout the United States in Curtiss motorcycle engine-powered Baldwin type lighter-than-airships. By 1910, however, at the first Los Angeles Air Meet, Beachey's airship race with Roy Knabenshue created lesser interest; the crowds flocked, instead, to see Glenn Curtiss and Louis Paulhan race aeroplanes. At the age of 23, Beachey's lucrative airship exhibition career had ended. Beachey promptly associated with Curtiss and learned to fly.

By early 1911, Beachey was giving aeroplane exhibitions and on August 20, 1911, he gained his reputation as a number one airman at the great Chicago Meet. Here, against the cream of the world's aviators from France,

England and the United States, he demonstrated a mastery of control and daring none could match. He flew an early Curtiss pusher in one uninterrupted climb until the tank was dry, then volplaned back to the show grounds on the shores of Lake Michigan with a world's altitude record of 11,642 feet. The rare (first-time published) photo(over) is my favorite of the Curtiss pushers typical of Beachey's 1911 shows. The dapper Beachey was in a Homberg and there is a superb Rembrandt quality image of a very old man sitting on the packing boxes in Dubuque, Iowa's Nutwood Park waiting to see this miracle of science, the aeroplane, fly in the hands of the master. A transitional model, this airplane probably had a front elevator but here retains only a front vertical surface. It was powered with a V-8, Curtiss engine and a larger tank had been installed. It was hardly a loop-er; note the thin struts and small tires. (See Photo #1)

The photograph above, No. 19, was inserted here, out of order with the text, as it best portrays the feeling of excitement of the crowd as Beachey takes off, waving gaily, for his last flight on 14 March 1915.



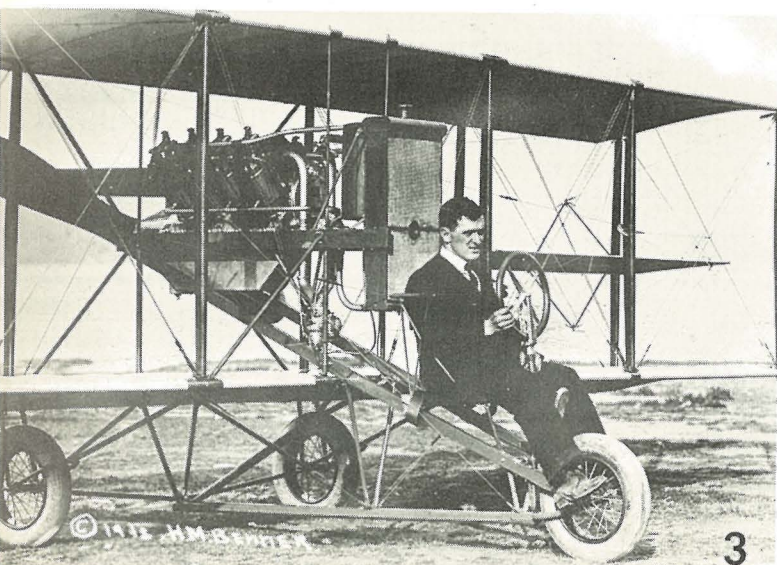
#1 - Beachey and his Curtiss Pusher at Nutwood Park, Dubuque, Iowa, 1911. Beachey in Homburg.

BEACHEY, 1911-12

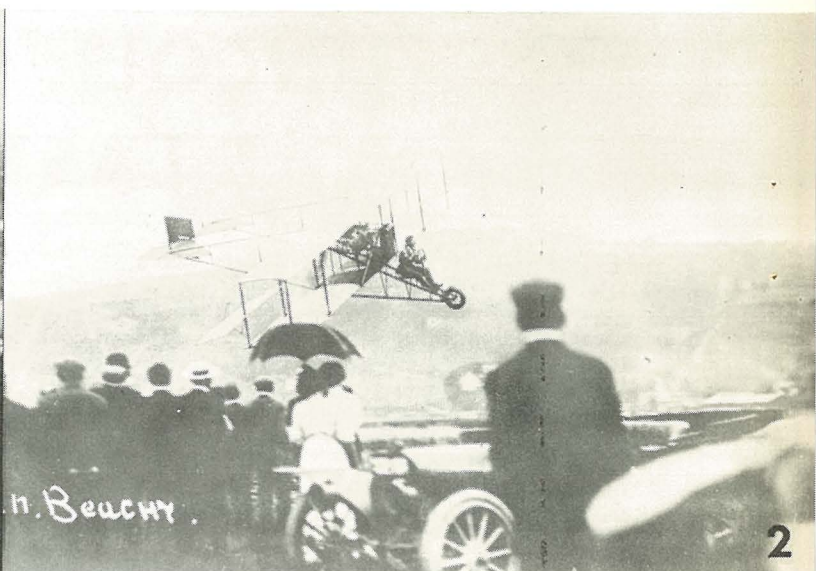
During 1912, Beachey flew in air meets in Boston, Los Angeles and Chicago; he tested planes for Curtiss and gave exhibitions all over the U.S. — Elmira, Hamilton, (Ohio), Peoria, Lawrence, (Kansas), and Milwaukee, just to name a few. His license was suspended twice — once for lacking sanction; once for flying over Michigan boulevard. He announced his retirement and entry into the real estate business at the end of the year. I believe that the photo of him, wing down by the crowd typified Beachey's mounts of 1911-12 and his low acrobatic work. All front surfaces are gone, tires are bigger, ship is sturdier, especially the landing gear.

BEACHEY 1912-13

My notes are thin on Beachey's activities during the spring and summer of 1913. AERO & HYDRO magazine has him working with Curtiss on the first Curtiss tractor, the forerunner of the Jenny. Anyway, the Frenchman, Pegoud, finally executed the first true loop in a Eleriot during September, 1913, and at this news, Beachey fairly exploded with renewed activity to regain his mythical



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#2 - Beachey does wing down, low flight for the crowd, typical of his daring and showmanship.

crown. He immediately ordered a new heavy Curtiss, beefed up for looping. I believe photo #3 is this special one which cracked up in its Hammondsport tests, probably in October. Next to it is the picture of the crash. The ship was a complete wash-out; a spectator was killed.

Beachey's injuries must have been minor for in November, at San Diego, with a Curtiss OX engine of 90 H.P. in a new biplane, he demonstrated loops, spirals and 8,000 foot dives. A small photo shows Beachey looping the Curtiss Pusher. His name was on the wing in large letters.

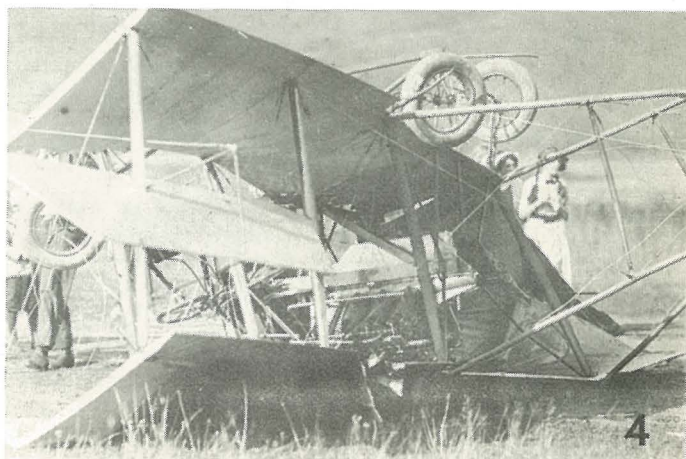
During the fall of 1913, in a series of California Air Shows ending December 27, at Tanforan Park, San Francisco Bay area, Beachey's acrobatics and great exhibitions were the main topic of conversation in aviation circles everywhere.

BEACHEY, 1914

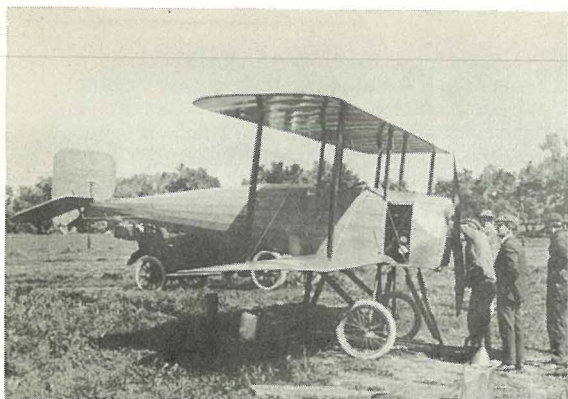
When the well-known "Early Bird", Art Mix, wrote his article, "My 82,000 Miles With Lincoln Beachey", he was referring to his trips as mechanic with Beachey during

#3 - The "heavy looper", probably at Hammondsport prior to his crackup in October. See #4.

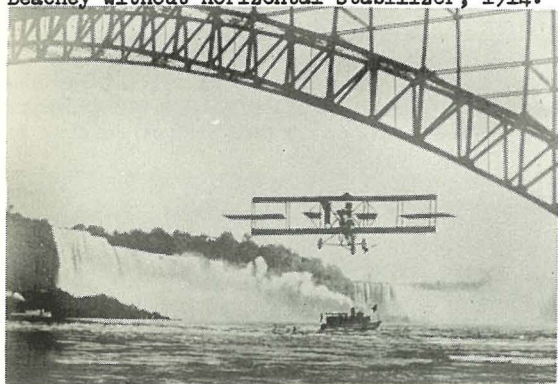
#4 - The crashed Curtiss, a washout. A rare photo from Early Bird Solbrig's collection.



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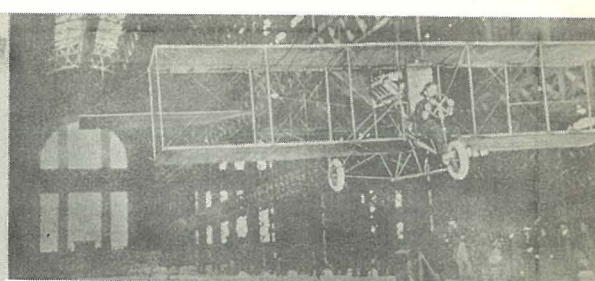
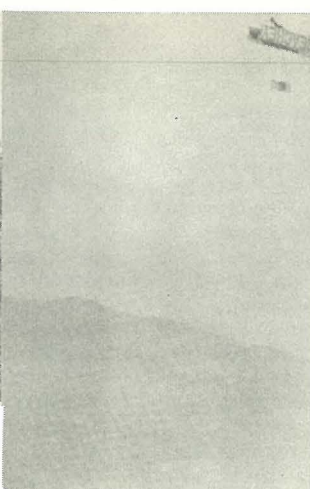
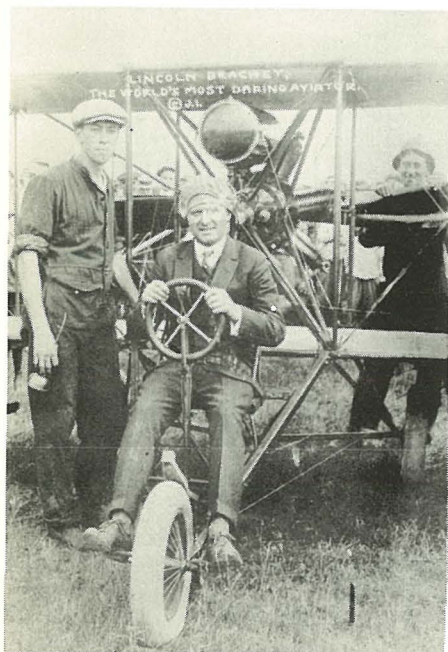
#6 - The Martin-Willard biplane, ordered by Beachey without horizontal stabilizer, 1914.



#8 - Flying under the Niagara Bridge, 1911.

#10 - Below right - Lincoln Beachey in a famous pose, shown here at Hawthorne Race Track, Chicago, 1914. The noise and nearness of this daring young man was always a thrilling experience, remembered even today by many people.

#9 - Warren Eaton, Beachey and Art Mix (at prop), with the "Little Looper, Elkhart, 1914.



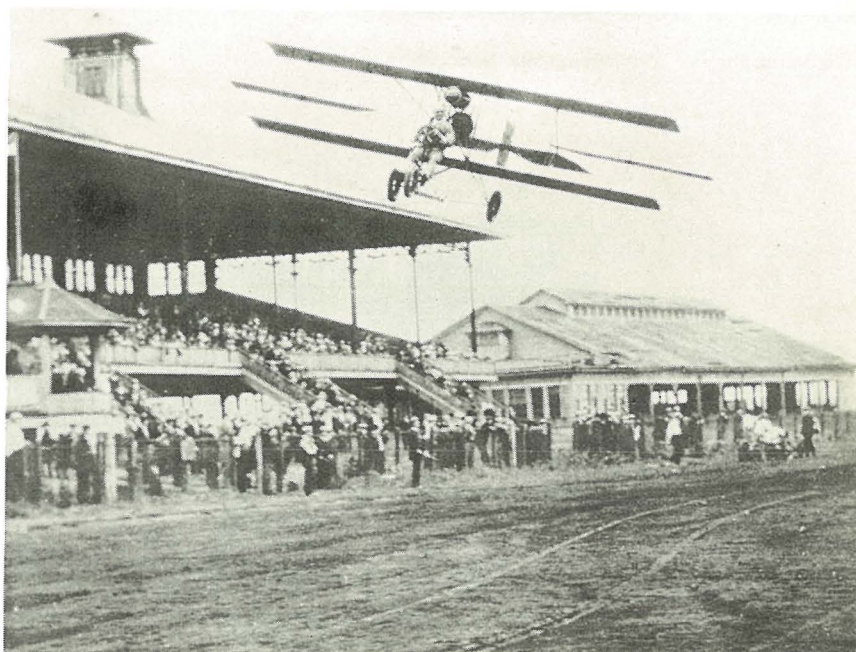
#7 - Flying the Curtiss looper inside Machinery Hall, San Francisco, 1914.

#5 - A picture of Beachey looping in 1913, reproduced from magazine print.

1914. Mix wrote of special trains, jumps from Massachusetts to California, flights over 126 cities, 17,000,000 people entertained and regular advertisements - "BEACHEY FLIES 3 P.M. RAIN, SHINE OR CYCLONE". The following photos depict some of this activity in the spring of 1914:

Photo #6 shows a beautiful tractor biplane designed by Charles Willard while working for Glenn Martin. Ordered by Beachey without a horizontal stabilizer for looping, the airplane quite like a Sopwith "Tabloid", proved uncontrollable in acrobatics and landed in a tree. Photo No. 7 shows Beachey flying a Curtiss inside Machinery Hall at the Pan Pacific exposition in San Francisco. As I remember, Art Mix told me this flight ended in damage to the aircraft. Photo #8 shows the famous Niagara Falls flight. An earnest retouching artist destroyed some of the detail of this great photo.

Some time after the 1914 Spring flights, possibly in April, Beachey went to France and bought the latest model rotary engine obtainable, an 80 H.P. Gnome. Speeds were rising in Europe with these low-weight, air-cooled rotary engines. Though the Martin tractor had failed him as an acrobat, Beachey evidently liked its 50 H.P. Gnome power plant. He commissioned Warren Eaton to build his most famous mount, the clipped wing



Curtiss-type pusher known as "The Little Looper" or "Pocket Pusher" for this new engine. I believe Art Mix helped build this airplane in Chicago.

In May, 1914, Beachey thrilled Chicago with loops and 80 mile speeds in "The Little Looper". Embarking at once on an exhibition tour of the midwest, he looped for Orville Wright at Dayton, flew fairs throughout Indiana, Illinois and Iowa. I have a fine, 75 foot, 35 mm. movie of his Iowa State Fair exhibition and will send 8 or 16 mm. copies to AAHS members at my cost. He raced Barney Oldfield in an auto at this fair. Photo #9 was a postcard. Over 1,000,000 were sold at 10¢ each. It shows Warren Eaton with the prime can. Beachey is in checked cap and stiff collar, and Art Mix is at the propeller. It was taken at Elkhart, Indiana.

The view of Beachey, low over the crowd in the race track stands shows the ease and abandon that characterized his flying. Another picture shows the superb trim that Mix and Eaton obtained. Beachey flew hands-off, between poles almost touching the ground. This was at the North Randall Track in Cleveland. Photo #12 shows Beachey talking to Eaton. Warren Eaton was pointing his finger and Beachey likewise was gesturing something --

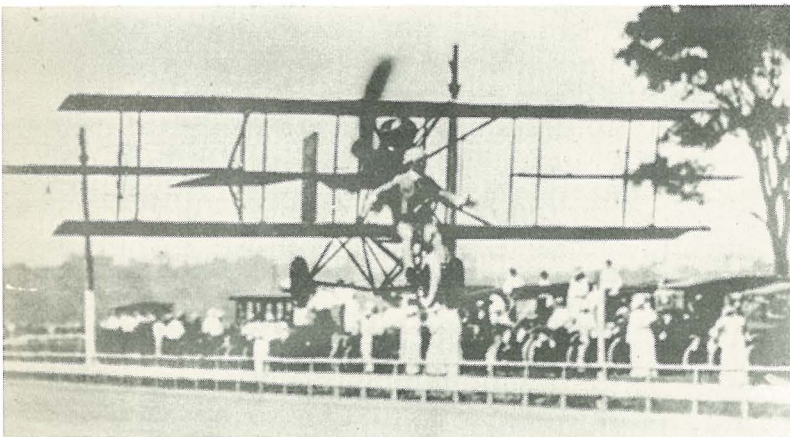
aviator's language. I believe this was at Toledo.

In this next picture, the Little Looper is shown with wing extensions which Eaton told me were tried in order to increase lift at high-altitude cities such as Denver. He also incorporated the ailerons into the wings.

Late in 1914, Beachey commissioned Eaton to build a still another small fast ship -- this time a light monoplane for his 1915 exhibitions. While the monoplane was under construction, Beachey and Mix were booked all over the West Coast by promoter Bill Pickens. At Fresno, Sacramento and Oakland, crowds witnessed the famous Beachey-Oldfield plane car race, saw "Linc" loop up to 80 consecutive times; watched his sickening vertical drops from 5,000 feet. Thus ended his busiest exhibition year.

BEACHEY, 1915

Beachey and Pickens staged a New Year's Day show in San Francisco in 1915. With the papers full of war news, a mock-up wooden battleship, well planted with dynamite and fireworks, was realistically "bombed" by Beachey to

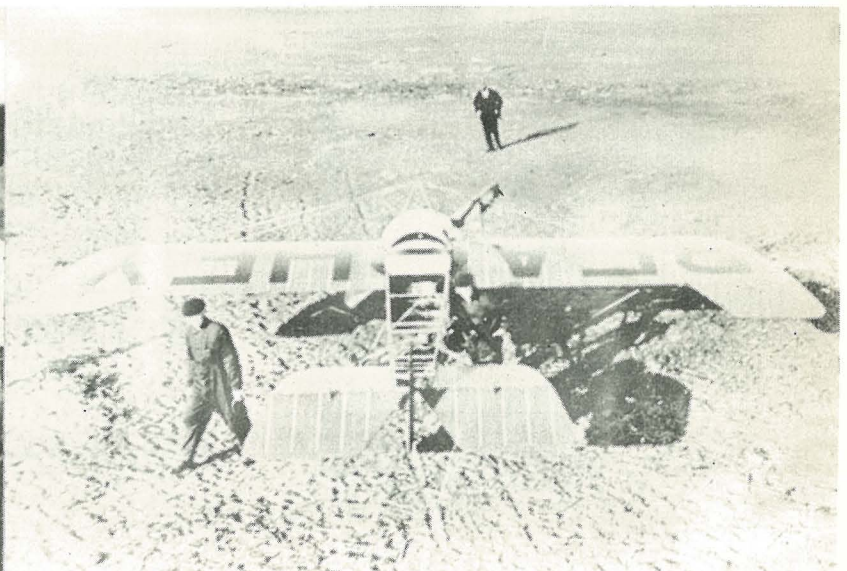
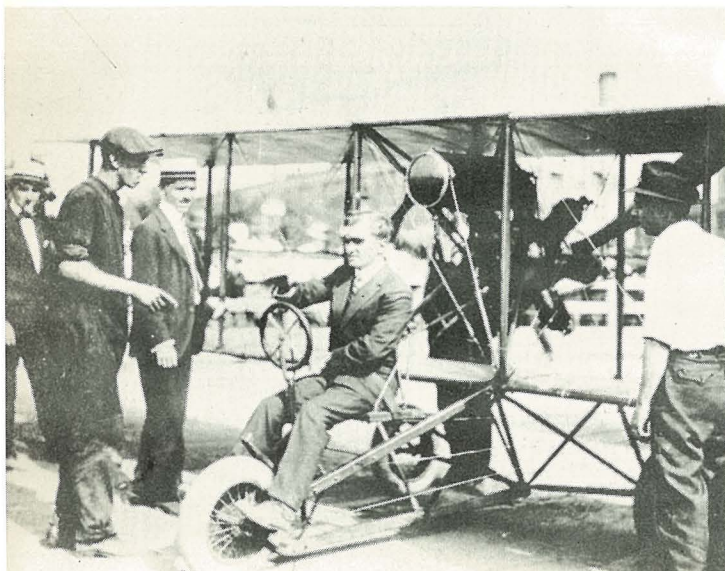
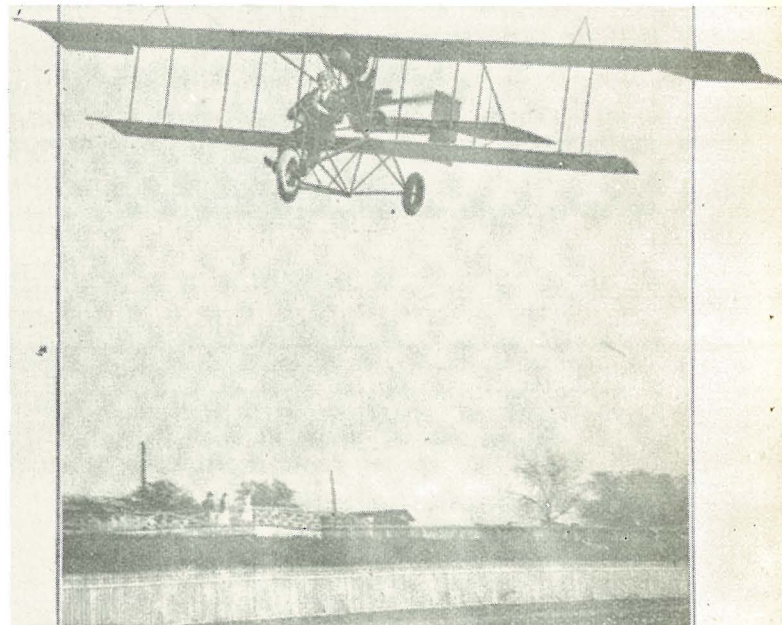


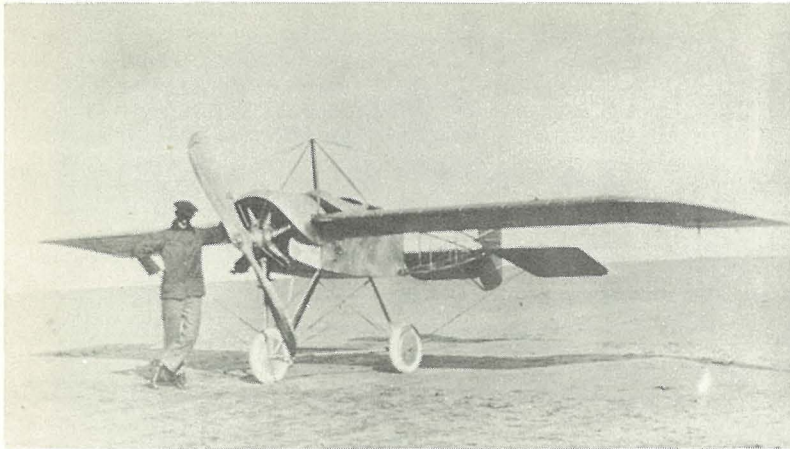
#11 - Flying "hands off" at North Randall Track

#12 - Eaton and Beachey with "Little Looper"

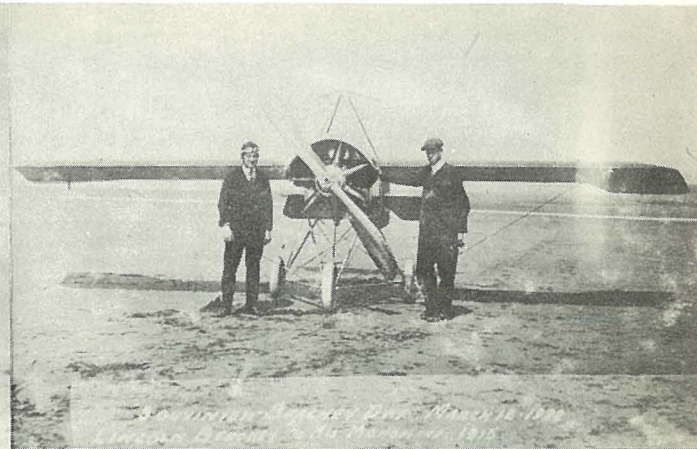
#13 - "Little Looper" with wing extensions

#14 - Beachey's ultimate, the Monoplane





#15 - Art Mix and the Monoplane, probably at Ocean Beach near San Francisco, while testing for P.P.I. Exposition



#16 - Widely distributed postcard photo of Beachey and Warren Eaton. Photo taken at Christofferson's airport

tie in with the news. Later in January, Beachey was in San Diego helping Curtiss test six army planes while awaiting the opening of the Panama Pacific International Exposition in San Francisco in February.

Now for the last three weeks of the famous aviator's life. On February 21, 1915, he opened the Fair with a beautiful flight in the Little Looper, trailing white smoke through three loops and releasing a cage of white doves. Thereafter, he flew regular exhibitions at the Fair daily.

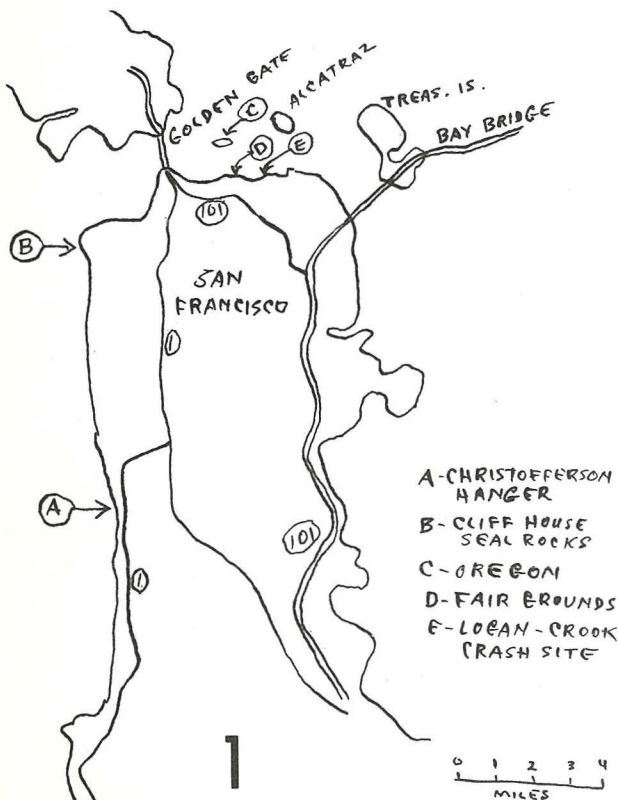
The monoplane, meanwhile finished probably in January or early February, had been tested on the ocean beach 10 or 12 miles south of Seal Rock's Cliff House where the Christofferson Brothers had a hanger. Drawing #1 locates this spot. Two excellent and rare photographs show this ship on the sand. Hillary Beachey, Lincoln's brother, who helped Eaton build the monoplane, is the one near the tail plane. Note the large elevators and ailerons, ordered by Beachey, for better con-

trol in low, slow flying at race tracks. All were interchangeable; the left aileron could be a right elevator if turned upside down. Photo #15, the gem of my collection, shows Art Mix proudly posing with the trim little monoplane. In this view, as in many others, it looked ready to leap into the air.

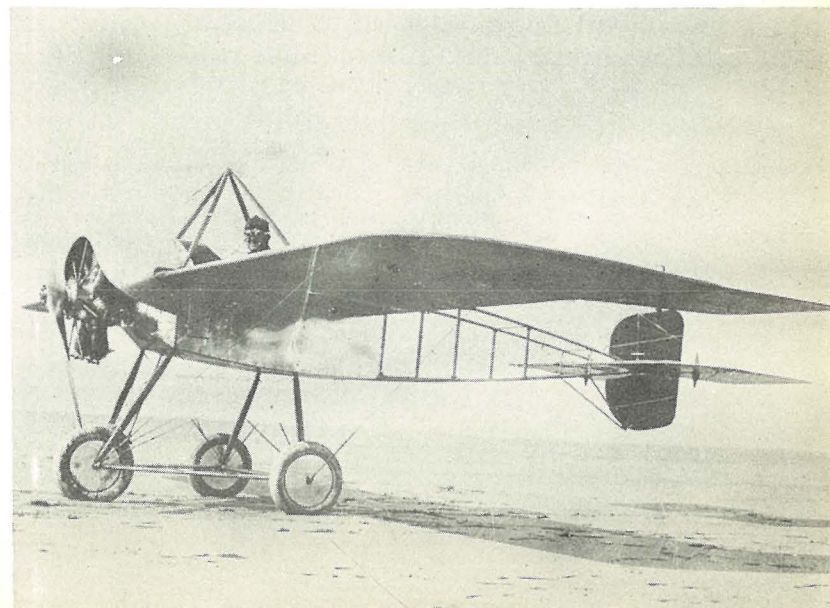
The few Monoplane specifications I have been able to glean from Mix and Eaton are listed. Neither of these pioneers retained a plan of the airplane.

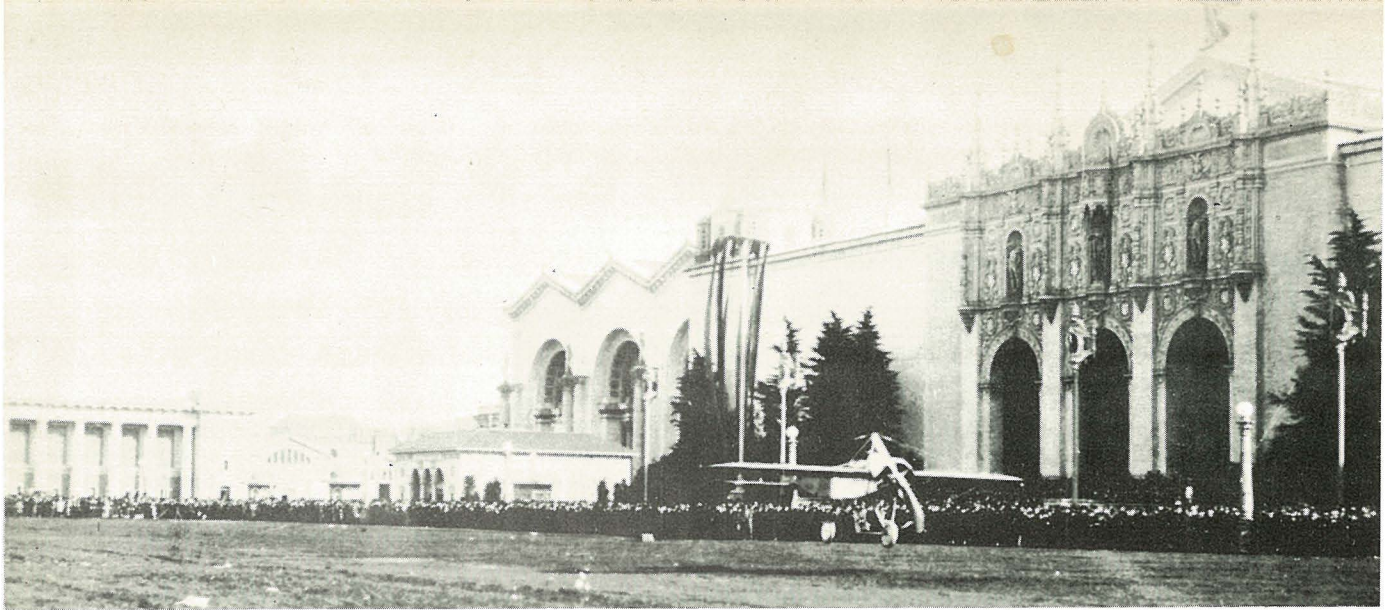
SPECIFICATIONS - 1915 BEACHEY/EATON MONOPLANE

Weight - 585 pounds with gas and oil, 21 minutes supply
 Engine - 7 cylinder Gnome "A" Model Monosoupape 80 HP.
 Propeller - Flo-torp 8 ft. diameter walnut
 Span - 26 ft.
 Chord - 5 ft.
 Landing gear - 20 x 4 wheels, axles extended for attachment of wing flying wires
 Brace wires - two cables to each wing top and bottom, 5600 pounds test strength
 Speed - 104 MPH.



#17 - This picture revealed the foot brake, a tension-wire operated plate which rubbed against the front wheel

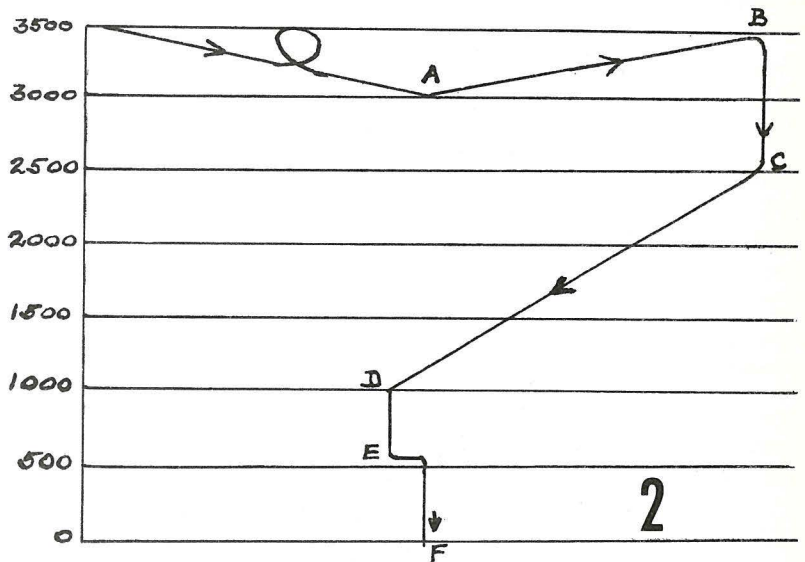




Lincoln Beachey starting his last takeoff, March 15th, 1915, at the Panama Pacific International Exposition, San Francisco

The Monoplane, in tests, was fast and a beautiful thing in the air. However, Art Mix tells me that it was disassembled and stored at Christofferson's hangar after a few flights. Evidently Beachey deemed it unsuitable for his acrobatics and low, close work. Some time late in February or early in March, the Fair officials requested that Beachey use the Monoplane in his exhibition explaining that they wanted to honor his ten years of flying airships, biplanes and now a monoplane, with a medal being struck for the occasion. On March 3, 1915, a reporter for the San Francisco Examiner found Beachey at Christofferson's and interviewed him. He learned that Beachey had been daily flying the Little Looper to the beach after the show where Mix, in one hour, transferred the Gnome engine to the Monoplane for further tests. On this date, Beachey said: "I will loop the ship at the Fair but I won't say what date." Between March 3rd and 13th, Beachey made several trips between the Fair and Christofferson's to practice and to prepare the plane for exhibition. Photo #16 shows "Linc" and Warren Eaton posing with the ship at the beach. This photo was later used as a souvenir postcard for San Francisco's Beachey Day, March 12, 1922. An excellent near side view, Photo #17 gives a clear picture of the foot brake, a plate hinged to drag on the front wheel.

On the 13th, the Monoplane was flown at the fairgrounds three times. Beachey looped three times on



This diagram shows the altitude profile of Beachey's last flight over San Francisco Bay between Alcatraz Island and the shore near the P.P.I.E. Park.

Beachey's Monoplane lifted to the surface alongside U.S.S. CROOK. Sailors removed his body as the crowd stood in silent tribute to this great aviator.



ABOUT THE AUTHOR

E.D. "Hud" Weeks is a most enthusiastic builder and flyer of pre-WWI airplanes. He owns one of two existant Beachey-replica biplanes. This photo shows "Hud" in what he calls "Beachey No. 2", with Al Elliott of Des Moines Flying Service. As a partner in Weeks & Leo pharmaceuticals and cosmetics) "Hud" works to get time off to fly, has piled up considerable hours just for fun. He leaves exhibition stunts to others. His Beachey collection is one of the largest and he regularly corresponds with many pioneer aviators.



the first flight. The second flight was a speed run. In the afternoon, the third flight was an 18 minute practice in the rain.

March 14th was a nice spring Sunday in San Francisco. At 3 P.M., Beachey flew the Monoplane from the fairgrounds. This was a short flight and he returned and visited with some friends on the field, from Yellowstone National Park. At 3:30 P.M., he took off again but the engine was misfiring and he cut it back and came down. At 3:40 Beachey, with repairs made, started on his flight that was to be his last.

Photo #18 shows the polo grounds and the crowd, estimated at 50,000, with Beachey a few feet off the grass on his last flight. The next was Beachey's last wave to the public. The modifications to his craft now included aluminum fuselage covering back to the tail. This picture angle illustrates the trailing edge aileron silhouette that caused the ship to be identified as "Taube" in so many newspaper and magazine descriptions.

Beachey flew out over the bay and climbed to 5,000 or 6,000 feet. Coming back over Alcatraz, he started a series of loops, losing altitude with each, until he reached 3,000 feet. Now refer to Drawing #2 for his last maneuvers.

At (A), after his last loop, he climbed back to 3,500 feet at approximately 3:55 P.M.

(B) Pushing the nose over, Beachey, (against the prior advice of Eaton, Mix and all his friends), went into his famous vertical dive for 1,000 feet with power on.

(C) Pushing it over still further into 45 degree inverted flight so the crowd could read B E A C H E Y on top of his wings, the little ship reached a terrific speed and lost altitude very fast.

(D) Returning to his vertical drop at 1,000, Beachey prepared to recover to normal altitude. At this point, his excessive speed and loss of altitude in the clean monoplane must have shaken him momentarily for he whipped the stick back abruptly to regain level flight.

(E) Here, at 500 feet, there was a loud sound as the left and then the right wing broke upwards. The stricken ship fell immediately into the bay.

The crash site was just off the fairgrounds between the Army Transport vessels CROOK and LOGAN, docked at Fort Mason in 35 feet of water. (See Drawing #1).

On impact, Beachey's safety belt must have held momentarily before tearing loose on the right side. He suffered only a broken right leg, one scalp cut, a black eye and bruises. The metal cowl, however, crushed back over the cockpit trapping Beachey within. Art Mix, Warren Eaton and Hillary Beachey, Lincoln's brother, started running for the dock area when they saw Beachey use power in the dive. Leo Weeks (uncle of the writer), a Petty Officer with the mid-day watch on the battleship OREGON, which was then at anchor in the bay, ordered Seaman Grace, the OREGON'S diver and his gear into the motor launch and shoved off with a crew for the crash scene. At 4:15 P.M., just 20 minutes after the crash, Grace made his first descent alongside the CROOK at a spot where sailors and spectators were pointing. He surfaced in three minutes, reporting little visibility in the murky water and a soft mud bottom.

During his second dive, the motor launch crew saw bubbles and smelled gasoline in another area. A grappling hook was thrown at this location and held. Grace was signaled to arise immediately. On his third dive, he used the grappling line as a guide and felt the wreck immediately. He tied the grappline line around the fuselage at the tail and surfaced. Warren Eaton was consulted and it was decided the empennage would stand the strain of recovery. A lighter with a crane then raised the Monoplane, swinging it against the CROOK. See Photo #20. It was now 4:30. Beachey had been under water 35 minutes.

When the wreck cleared the water, OREGON sailors in the motor launch pulled back the smashed cowl and lifted

Beachey clear. He was wrapped in canvas and hoisted aboard the CROOK by deck hands. Within seconds, the thousands of persons present removed their hats in silent tribute.

Aboard the CROOK, doctors pronounced the death by drowning of the great Lincoln Beachey. Thus, San Francisco, Beachey's home and also birthplace, became his final resting place. His funeral was three days hence, 1:00 P.M. on the 17th of March, 1915.

On March 22, 1915, the Pacific Aero Club received the following accident report: (Condensed and underlined by the author)

"Mr. Guy T. Slaughter,
President, Pacific Aero Club
San Francisco, California

Dear Sir:

In accordance with your telephone request of Monday, March 15, 1:15, we, the undersigned, constituting a special committee, investigated the cause of the fatal accident to Aviator Lincoln Beachey, March 14th, while flying at the Panama Pacific International Exposition, and submit the following conclusions and report:

We are convinced that Aviator Lincoln Beachey met his death by reason of collapse of his Monoplane, accounted for by coming out of a vertical drop too suddenly.

It is our opinion that Mr. Beachey misjudged his speed by reason of the fact that his body and face were protected by enclosed fuselage and windshield. In all previous vertical drops, he had used a Curtiss-type biplane (pusher) where he was exposed to the full force of air pressure which aided him in judging his speed. It is thought that, due to misjudging his speed, he came down closer to the ground than he intended and then over-controlled in an effort to resume normal line of flight, before descending so low that he could not reach his landing place. The Committee is of the opinion that Mr. Beachey had attained a speed of 180 miles per hour when he endeavored to resume a normal line of flight. According to the consensus of opinion of numerous eye-witnesses, including members of your Committee, Mr. Beachey made a preliminary vertical drop prior to his upside-down flight from an altitude of about 3,500 feet; it is estimated that from this altitude he made a dive of 1,000 feet before beginning the upside-down flight. It is estimated that he flew in the upside-down flight at an angle of about 45°, losing about 1,500 feet in altitude before beginning the last vertical drop. The last vertical drop is estimated at 500 feet, bringing him down to within approximately 500 feet of the ground, at which point he attempted to resume normal line of flight and both wings collapsed folding against the sides of the fuselage. Mr. Beachey's motor was running the last two-thirds of the upside-down flight, which was contrary to his usual practice, and continued to run until he struck the water.

The monoplane used by Mr. Beachey was designed by Mr. Warren Eaton, who designed the two biplanes used by Mr. Beachey during the season of 1914. The monoplane was intended for a speed of 103 miles per hour in normal flight, the factor of safety being 7 to 1 at that speed; in practice it developed a speed of 105 miles per hour. Your Committee, however, figures that the plane would have been absolutely safe up to a speed of 150 m.p.h. Your Committee examined the wreckage and found all control and stay wires intact, and that all materials used in the machine were well selected and the

(Text continued on Page 149)

LINCOLN BEACHEY

(Continued from Page 111)

workmanship excellent. Furthermore, we find that both wings broke at practically the same distance from the fuselage.

The autopsy surgeon is of the opinion that Mr. Beachey actually lost his life from drowning.

Mr. Beachey had previously executed loops in public with this monoplane, but as stated before had never either in practice or publicly attempted to do his vertical drop and upside-down flying in this machine or in any other monoplane.

Your Committee greatly appreciates the assistance rendered by Mr. Warren Eaton, designer, and to Mr. Arthur H. Mix, Mr. Beachey's mechanician."

(Signed) Robert Fowler, Aviator, Chairman
Roy N. Francis, Aviator
Carl T. Sjolander, Aviator
Chas. H. Paterson, Manufacturer of
Aeroplanes
L. A. Wallace, Aeronautical
Draughtsman
Jay Gage, Aeroplane Designer and
Manufacturer, of Los Angeles,
serving at special request of
Chairman

The following notes were made on the accident report by Warren Eaton:

1. Factor at 180 MPH equal 2.16
Controls twice oversize needed for normal flight. Built oversize for Beachey's fast use when near ground at 100 MPH. Square of speed x twice control equals wreck. (Later his speed was actually calculated at 240-250 MPH).
2. Factor 7 to 1 calculated at 100 MPH.
Factor at 150 MPH - 3.1 to 1.
Factor at 250 MPH - 1.1 to 1.
Any over-control would wreck plane.

The following comments were published in AERONAUTICS magazine (4/15/15 issue). These are excerpts. The reporter was an eye-witness.

"The ship was an excellent job, one of the neatest planes I've ever seen, staunch in every detail.

His death was due solely to the aviator's inexperience in flying such a light monoplane.

The machine dropped fully 250-300 miles per hour. No monoplane or biplane could have withstood the strain of such falling force."

Some final quotes on Beachey: Bill Pickens: "Beachey was a professional dare-devil. He retired four times but professional dare-devils never quit." Glenn L. Martin: "Beachey was hardened to hazard." James R. Hickey, Yellowstone Stage Company, last friend to chat with him: "I dared not mention his apparent apprehension before the last flight; he was too dauntless." Beachey himself, to a Bulletin reporter at Emoryville Racetrack. "If I get killed, it will be in a monoplane, but I'll tame one some day."

Regarding the disposal of Beachey's equipment — Katherine Stinson bought the wreck and the Little Looper. She hired Art Mix and went on a successful tour with a Partridge Tractor powered with Beachey's famous Gnome 80. Mix put a 50 Gnome in the Little Looper, which was sold to Cliff Cook, who promptly cracked it up in the South on a tour. Beachey's 80 Gnome is safe in private hands today, pickled and ready to run. The writer is working a slim lead on the Little Looper, reported stored in a southern state.

Credits: I want to thank the following for photos and/or eye-witness impressions, advice, etc.: Art Mix, Warren Eaton, Leo Weeks, Willis Nye, Ernie Hall, Charles Willard, Mrs. Ruth Solbrig Adams, Bert Dudek, George Shane, Harold Morehouse and Fred Howard.