

# THE "CENTURY OF PROGRESS" STORY

by

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c/n 69 - NC-869E - Reference: Letters from Jimmy Mattern dated 7-1-47, 4-13-56 and 9-25-56; Jimmy Mattern's book "Cloud Country" - Book Three - "Lost In Siberia"; and Photos of the three aircraft involved. New York Times.

This Lockheed Vega, a second hand plane, was purchased by Jimmie Mattern from the Detroit Aircraft Company sometime prior to Sept. of 1931. Mattern operated the "JIMMY MATTERN - FAST FLYING SERVICE OF FORT WORTH, TEXAS" with this plane and this legend appeared in a circle on each side of the fuselage of the Vega, and appeared so when Mattern brought the Vega to New York to be prepared for his round the world flight attempt with Bennett Griffin. The Vega was not fitted with wheel pants prior to the world flight and was equipped with the large disk type standard Lockheed wheels. The plane was fitted with a Pratt & Whitney Wasp "C" of 425 h.p.

The airplane was turned over to Floyd Fetterman, then the best qualified Lockheed mechanic on the east coast, to be prepared for the coming flight and it was highly modified for its intended task.

Major alterations to the airframe included the strengthening of the fuselage to carry a great load of fuel. Additional fuel tanks were installed in the wings. The seats in the cabin were removed to make room for cabin fuel tanks. These tanks were made up of a combination of gas tanks originally installed in the Lockheed Vega "Winnie Mae" NR-105W used by Post and Gatty for their world flight, and from Lockheed Vega NR-7952 used by Amelia Earhart for her transatlantic flight of 5-21-32. A capacity load of 610 gallons of gasoline and 30 gallons of oil brought the gross weight of the plane up to 8,350 pounds.

Several new instruments and an improved Pitot-Static speed indication system was installed. A duplicate set of controls and instruments were built into the rear of the cabin aft of the fuel tanks. This installation made the Vega the first and only two place, dual control, Lockheed Vega in existence. A cockpit hatch was cut into the center section, just forward of the trailing edge, of the wing. The cabin door was sealed and the two forward windows in each side of the cabin were removed along with the window frames, the openings covered over with fabric, and then painted over. Air wheels and wheel pants were installed in place of the original large metal disk thin tired wheels. The Vega was christened the "Century of Progress".

COLOR SCHEME: Fuselage and wheel pants were blue with white trim stripes. The landing gear struts were blue. The fin and rudder, stabilizer and elevators were white. The bottom of the wing was white while the top of the wing was two colored in white with a blue center as per the usual Lockheed top wing paint trim design. The registration numbers on the bottom of the wing and on the rudder were blue with red edging. The registration numbers on the top of the wing were white with red edging. The DETROIT AIRCRAFT Lockheed Insignia on the fin was removed for the round the world flight, but had previously appeared in black. The pilots names appeared in white

letters within a circle on each side of the fuselage, midway between the trailing edge of the wing and the leading edge of the stabilizer. Over the top of the circle, forming an arc, was printed the name CENTURY OF PROGRESS in white letters. The face of the propeller (that part of the prop that the pilot sees from the cockpit) was painted anti-glare black from the tips to within 12" from the prop hub. The propeller tips, on the back surface of the blades only, were painted from the tips towards the hub as follows: Outer 4" red - 1" bare aluminum - 1" red stripe - 1" bare aluminum - 1" red stripe.

Mattern and Griffin left Floyd Bennett Field, New York, on 7-4-32 for Harbor Grace, Newfoundland, the first refueling stop on their dash around the world. After hasty refueling, they took off for the flight across the Atlantic, landing in Berlin, Germany 29 hours and 31 minutes later. This was the first direct America to Berlin flight. Proceeding on to Moscow well ahead of schedule, they landed, refueled and headed for Minsk. Suddenly the hatch over Mattern's head tore loose and, flying back in the slipstream, smashed into the fin and rudder making a forced landing imperative. The ensuing landing at night, in a peat bog, caused the Vega to somersault, making a total wreck out of a once beautiful ship. Fortunately both Mattern and Griffin suffered only minor bruises, but the Vega was completely ruined. The Russians helped salvage the plane and it was eventually returned to Fetterman's hangar at Floyd Bennett Field.

A picture in Mattern's book "Lost In Siberia", shows the Vega lying on its back with the nose pushed in, the fuselage broken and split wide open, and with the landing gear and tail assembly smashed. One wing tip was torn open and the entire wing badly punctured.

Surveying the wreckage of his once beautiful airplane, Mattern vowed he would vindicate himself. To repeat the same flight, even though it be successful, would not gain what he would consider victory over defeat, so instead, he decided to make the first solo round the world flight, something never before tried. He now set about trying to obtain a new plane. This was not easily done, so he studied the remains of his old Vega, and decided that it could be made airworthy once more, if a new fuselage and tail assembly could be obtained.

A few days later an aircraft parts dealer offered to lease the needed fuselage and empennage for the flight and it was procured at once. Reconstruction began immediately with the fuselage and tail assembly from the Standard Oil of New Jersey Vega c/n 118 - NC-106N.

The repaired landing gear, including the wheel pants, was installed on the replacement fuselage. One set of controls and instruments, along with several new instruments, were installed in the front cockpit. Whereas the original Vega had been equipped with dual controls, the new version of the Vega would be a single place job. The original wing was repaired and mounted. The factory identification tag c/n 69 was removed from the old fuselage and mounted in the new fuselage to replace the tag c/n 118 which was missing when Mattern took delivery of the "Stanavo" fuselage. Identification of the replacement fuselage was made thru the registration numbers NC-106N on the rudder as well as the full length "Stanavo" eagle painted on the fuselage.

Since there would be no need for a navigator on the solo trip, the space at the rear of the cabin, formerly occupied by Bennett Griffin, was filled with two additional gas tanks increasing the capacity by 88 gallons to a total of 702 gallons of gasoline. These tanks were also taken from the original sets obtained from Wiley Post and

Amelia Earhart. The original tanks, damaged in the Minsk crash landing were repaired and used again. The first two windows and window frames on each side of the fuselage were removed, the openings plugged, and covered with fabric, giving the appearance of a solid fuselage side.

The original Wasp engine was not damaged too severely in the Minsk crash so Mattern decided that he would have it rebuilt and also increase its power. The engine was returned to the Pratt & Whitney factory where a blower, high compression pistons and the necessary gears for a controllable pitch propeller were added. The rebuilt Wasp was now capable of producing 550 H.P. for normal cruising and, it could give almost 600 H.P. for takeoff. Mattern obtained, from the Hamilton Standard Factory, the original (first built) controllable pitch propeller and it was mounted along with the engine. The Vega was once more a complete airplane.

A brand new, very spectacular, paint design was chosen for the Solo round-the-world flight. No doubt prompted by the "Stanavo" flying eagle already on the new fuselage, Mattern embellished upon the existing design, changing colors and the feather lines. The Vega was painted again in red, white and blue, and was once more christened "CENTURY OF PROGRESS".

#### COLOR SCHEME:

The fuselage and nose cowl was basically red. The full length eagle was blue and edged in white with white feather lines. The "Century Of Progress" insignia and lettering on each side of the fuselage was white on a red base. The name JIMMY MATTERN was printed in white letters just below the cockpit window on each side of the fuselage. Below Jimmy Mattern's name, on each side of the fuselage, appeared a white panel in which were listed the flight records made during the previous world flight attempt. The records listed as follows were printed in red letters:

#### MATTERN & GRIFFIN WORLD RECORDS

Trans-Atlantic - 10 Hrs. 50 Min. 2000 Miles  
New York to Berlin 29 Hrs. 31 Min. 4106 Miles  
Newfoundland to Berlin 17 Hrs. 30 Min. 2960 Miles

#### First America to Berlin Flight

The main landing gear struts were blue. The inner landing gear "V" struts were red. The wheel pants were red while the eagle's claws were blue with white edging. The small wheel pant on the tail wheel was red. The fin and rudder were red with white edges. The horizontal stabilizer and elevators were blue with white edges and feather lines on both upper and lower surfaces. The lower surface of the wing was all blue with white edges and feather lines running span wise. The upper surface of the wing was all blue with white edges and feather lines running chord wise. The registration numbers on the upper and lower surfaces of the wings were red with white edging. The registration numbers on both sides of the rudder were all white with blue edging. The standard Lockheed Insignia on both sides of the fin was white. The face of the propeller was painted anti-glare black from the tips to within 12" from the hub. The propeller tips, on the back of the blades only, were painted blue, white and red in 2" bands from the tips towards the hub.

When the plane was ready to go Mattern made a 1700 mile test flight nonstop to

his home in San Angelo, Texas. He almost lost the cockpit hatch again on this flight and only avoided disaster by rigging his shoulder harness to the hatch to hold it in its place. Upon arrival at San Angelo the hatch was so fixed that it could not come loose in flight again, and Mattern returned to New York. For some unknown reason the two remaining windows and window frames on the right side of the fuselage were now removed and the openings covered with fabric and painted to match the rest of the fuselage.

On 6-3-33, Jimmy Mattern left Floyd Bennett field in Brooklyn, New York for a fast trip around the world in hopes of setting the first solo round-the-world record. He lifted the "Century of Progress", the gross weight of which was now 9,150 pounds at take-off, from the runway and thereby set a record for the greatest wing loading ever to be carried by a Vega. He landed safely on a stretch of rocky beach the following morning 4,100 miles away at Juvfruland Island, Norway, setting another record for the longest non-stop solo flight. Weather conditions over the Atlantic were so bad that the accumulated ice on the wing of the Vega caused the plywood covering to crack. After repairing the cracked wing with fabric, Mattern took off and flew to Oslo, about 100 miles away. Refuelling again he flew on to Moscow, Russia, and Omsk in Western Siberia. While landing at Omsk a shock cord in the landing gear was damaged, but quickly repaired. On the way to Chita, 800 miles out of Omsk, a gas line broke spilling raw gasoline into the cockpit. Sick from the fumes, Mattern made a quick emergency landing and in the process hit a tree stump severely damaging the horizontal stabilizer and elevators. Russian mechanics, brought in from Novo Sibirsk, helped fix the gas lines and tail assembly and, several hours later, after dumping most of his fuel in order to get out of the short field in which he had landed, Mattern flew the short distance to Krasnoyarsk.

Here he refueled and streaked for Irkutsk but, finding the airport flooded, he flew on to Belva on the Siberian railroad. At Belva, Mattern changed spark plugs, took on 400 gallons of gas for the flight to Khabarovsk, and took off at once. By this time the flight had resolved itself into a series of take-offs, landings and accidents, and Mattern was so tired from the strain of continuous flying without sleep that he decided to call it a day and crash land the ship in the Amur river, now bathed in moonlight beneath his wings. Piling pillows around his head to ward off possible injuries in the landing, he brought the Vega in low over the water and, to his surprise, instead of hitting water, his wheels rolled on the smooth sand of a stretch of beach he had not even noticed. He had landed on a small island in the middle of the Amur river. Blessing his good fortune, he climbed out of the cockpit and fell asleep under the plane.

Mattern awoke to find himself surrounded by people who, coming from a nearby town, had discovered the gaily colored airplane in the middle of the river. Now refreshed with much needed sleep, Mattern decided to push on at once. On checking his fuel he discovered that he would not have enough gas and oil to reach his objective so he began to hunt for the needed fuel. In the Siberian wilderness aviation fuel is not to be found so, settling for Siberian tractor gas and crude oil he prayed that the engine would stand up under the insult and took to the air again. Although the Wasp ran rough all the way, Khabarovsk was reached without further incident. After a quick oil change and refuelling, Mattern left for his next stop Nome, Alaska. He sped out over the Sea of Okhotsk. After flying almost 800 miles he was forced to turn back when he ran into a solid bank of cloud and ice.

In a short time a break in the weather signalled another take-off and he left again for Nome. After safely crossing the Sea of Okhotsk, and just as he was crossing the Anadyr River, the oil pressure suddenly dropped. Immediately switching to

the reserve oil supply, he found that the lines had frozen in the extreme cold and, being alone in the plane he was unable to do anything to thaw them out. He had no choice but to land before the engine would seize, making a forced landing even more difficult. Making a quick survey of the terrain below, Mattern realized that a safe landing was impossible and, if he was to survive, the Vega had to be sacrificed calling an end to the flight. Remembering the almost fatal crash landing at Minsk the year before, he decided that he must get rid of the landing gear in order to avoid serious injury to himself in this desolate country where help was not available. Self preservation was now his prime consideration, no matter what the cost. The landing gear evidently had been rigged to that it could be easily discarded should the necessity arise for, according to Mattern's book "Lost In Siberia", he states that he flew close to the ground under all the power he could get from the failing engine and knocked the landing gear clean off of the airplane, then slid the Vega in on her belly. The landing forced the engine partially back into the cockpit spraining one of Mattern's ankles but, other than a battered fuselage bottom, damaged nose cowl and bent propeller, the Vega was not damaged. For several weeks Mattern lived in the aircraft. He even removed a cylinder from the engine and used it as a cooking pot for the few sparse meals he managed to obtain.

Knowing that rescue was not forthcoming, Mattern built a raft and floated down the Anadyr river hoping that he would run into some form of life. One day while he was building a fire on an island in the river, preparatory to cooking himself a meal, the underbrush caught fire and, before he realized it the whole island was aflame. The smoke from the fire attracted a family of Eskimos who came to investigate. They rescued Mattern and brought him to Anadyr from whence the world learned of his crash and survival.

With rescue on the way from the United States, Mattern returned to the wreck of the "Century of Progress" with Ivar Lindenoff, an English speaking Russian, and together they salvaged the engine and instruments from the Vega, crating them for shipment back to New York. The engine and instruments must have been intercepted on the way as they never did arrive at their destination.

Mattern was eventually flown out of Siberia by the Russian pilot Sigmund Levenevsky who flew him to Nome, Alaska. At Nome Mattern borrowed another Vega and flew on to Montreal and New York where he received a heroes welcome. The only part of the Lockheed that Mattern brought back was the empty instrument panel which he decided to carry with him.

The "Century Of Progress", once a proud and beautiful airplane, remains today at the desolate scene of the crash landing, a wind swept, barren wilderness, 75 miles inland from Anadyr, in the northern wilds of Siberia. The various parts of the original "Century Of Progress" that were not scrapped or used for the second version of the Vega, as well as the instrument panel that Mattern brought back with him, are being preserved in a special "Aviation Den" at Jimmie Mattern's home in Burbank, California.

The memory of the Lockheed Vega "Century Of Progress" was carried to yet another airplane, also a Lockheed, when Jimmy Mattern had the registration number NR-869E assigned to a Lockheed 12 that was specially built for him to fly in the 1937 Lindberg Memorial Race from New York to Paris.

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