

PIONEERING ARCTIC AIRWAYS

by

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X3903

Model No. V-1

Owner: Capt. George H. Wilkins, Explorer

Polar flights today are commonplace with three foreign airlines authorized to fly from the West Coast to Europe, one of them, Scandinavian Airlines Systems, scheduling daily flights this summer and Pan American and TWA recommended to enter the field soon. However, back in 1913-1916 flying over the Arctic regions was only a distant dream for Capt. George H. Wilkins, famous polar explorer. As he trudged through heavy snow and over ice ridges with aching swollen feet he was determined that some day, from the comfortable cabin of a plane, he would view in one day more undiscovered territory than he could cover in 12 months with a dog team.

Wilkins realized part of his dream in 1926. Backed by the Detroit News, he headed a costly expedition, heavily staffed with specialized assistants. With two big Fokkers - a tri-motored F-7/3m, with 72' wing and Wright Whirlwind engines, christened the BETROITER, and an F-7, with 63' wing and a special Liberty engine, the ALASKAN - Wilkins intended to explore the unknown territory beginning 50 miles north of Point Barrow. He would fill in mountains and land on the incomplete maps of that time, take soundings from the ice where no land existed, determine the extent of the Continental Shelf northeast of Siberia and get indications of wind and sea currents. As a climax he would attempt the spectacular top of the world flight from Point Barrow, Alaska, to King's Bay, Spitzbergen.

The expedition had an ominous start at Fairbanks when its press representative, Palmer Hutchinson, accidentally walked into a whirling prop and was instantly killed. Then both Fokkers crashed on the soft snow runway after testing, damaging the wheeled under-carriages. Luckily no one was hurt but the planes required extensive repairs. The ALASKAN was ready three weeks later so Wilkins, with Lt. Carl B. Eielson, pioneer Alaskan flier at the controls, headed for Pt. Barrow. They flew at 6,000' to clear the Endicott Mountains, supposedly 5,000' high, yet climbing to 9,000' they found that the mountains were still higher. A storm was brewing but the fliers reached Barrow without mishap.

After a five day delay due to stormy weather they flew back to Fairbanks, clearing the Endicotts at 11,000'. Wilkins sketched in many geographical features not shown on his government maps. Two more trips were made to Barrow, bringing fuel to that northern base for future explorations. Heavy fogs and storms ended the flying season in the Arctic. The trip over the top of the world to Spitzbergen which would pioneer Arctic aviation transportation would have to wait another year.

Early in 1927 Wilkins again headed north, this time with less personnel. A Stinson biplane, fine for short flights, was added equipment and all three planes flew safely from Fairbanks to Barrow. After several sorties Eielson and Wilkins headed toward the unknown area north-northwest of Barrow. Several landings were accomplished where Wilkins took soundings for drift and current. In shallow soundings he used the manual sounding gear to get bottom samples and temperatures.

Four brass tubes fitted inside a coiled spring with four corks attached were lowered. When snapper jaws were set apart, the corks were raised; the jaws automatically released as the snapper touched bottom and the closing spring corked the tubes.

The wind increased as a storm darkened the sky. Suddenly the engine sputtered, caught, sputtered again and quit. Eielson put the ship into an easy glide. Near ground-level the air became more turbulent and the plane pitched wildly, bouncing to a rugged landing. Out of gas, the two men resigned themselves to walking to some nearby coast when the storm abated. The ice floe they were on drifted eastward about two miles an hour. On the fourth day they started walking, scrambling over blocks of ice to a solid floe and for five days they crossed one lane after another of moving ice. Each night the men built a snow house for shelter which was surprisingly comfortable. Now the lessons Wilkins had learned on his earliest polar expeditions meant survival for himself and his pilot-companion. Eighteen days after crash-landing, the two men reached Beechey Point where contact was made with the rest of the expedition. Eielson's fingers were frozen but all responded to treatment except the little finger which was amputated later at Point Barrow. Wilkins' feet swelled for a week from cessation of extreme exertion.

The trip of mishap proved three things: 1) approximate limit of the Continental Shelf north of Siberia; 2) landings on pack ice were possible; 3) experienced men without dog teams could walk safely over Arctic ice. Several later attempts to explore further were thwarted by increasingly heavy fogs. Again the flying season in the Arctic was over and again the flight to Spitzbergen was postponed. The Stinson was stored at Fairbanks and the dismantled Fokkers were shipped to Seattle.

Undaunted by two postponements of his top of the world flight, Wilkins headed south for Los Angeles with the intention of converting the Fokkers into funds for another Arctic expedition. Enroute he stopped over at San Francisco. It was from his hotel window there that he saw a fast plane of clean design fly by. Impressed by the monoplane's lack of struts, common to most planes of that era, he felt that this was the ship to conquer the Arctic.

Wilkins inquired at local airports concerning the plane but was unsuccessful in learning its identity. It was August, 1927 and the Dole Race was coming up so he decided to go to Bayfarm Airport and look over the entrants. There he saw the ship he had been seeking, Vega 1, entered as the "Golden Eagle". (See page 51). More confident than ever of succeeding with this ship he placed his order for a Vega. This was a stock model with substitution of skis for wheels, a hatch on top of the fuselage aft of the wing in place of a standard door, and two windows in the bottom of the ship for observation purposes. It was powered by a 220 h.p. Wright J-5 "Whirlwind". By this time he had disposed of the Stinson to an aviation company at Fairbanks, and he sold the Fokker DETROITER to Major Kingsford Smith. Re-named THE SOUTHERN CROSS the tri-motor achieved world fame the following year on making the first flight across the Pacific Ocean from California to Australia.

The Vega was towed from Lockheed's Plant on Sycamore Street, Hollywood, to Rogers Airport eight miles away. Because Eddie Bellandie, a tri-motored Ford pilot of Maddux Airlines, had test-hopped the "Golden Eagle" and Lockheed's Demonstrator X3625, it was only fitting that he should fly Wilkins' ship. On January 9, 1928, Eddie took off for a 20 minute test hop and upon landing his first comment was "She's a pippin!" Lt. Carl B. Eielson, Wilkins pilot, came to Los Angeles January 11, 1928 and was checked out on the Lockheed Demonstrator. He then took off in X3903 and put her through her paces, and coming in for a landing barely missed the high

tension wires that bordered the field. Not wishing to risk his ship needlessly, Wilkins moved to Western Air Express' Field which was 20 miles east. There Eielson had another narrow escape. He had barely climbed 100 feet when the engine quit. He banked sharply into the wind and came down across the furrows of a plowed field. Just as he was about to touch down the engine caught and whirled smoothly as the ship rolled to a stop. Later, Wilkins discovered that when the gas tanks were nearly empty, air would be drawn through the vent in the gas-gauge to the main feed line. If the lower tanks were full or if the upper tanks had a certain amount in them, this would not be likely to occur.

After 70 hours of testing, the plane was shipped to Fairbanks, Alaska, arriving there on March 19, 1928. The next day it was flown north to Point Barrow, 500 miles nearer the North Pole, where more tests were conducted under polar conditions with temperatures ranging from 33 degrees above to 48 degrees below zero. It took two days for a crew of 33 Eskimos to cut a runway 14' wide and 5,000' long through the ice and snow.

Early in the morning of April 15th, with the mercury at -20°, Wilkins and Eielson climbed aboard, finally ready for their long journey across the Arctic Sea to Spitzbergen, and eager to discover what existed in this area, three-fourths of which had never been explored. Navigation became quite a problem because a change of course was required every hour due to the deviation created by the nearness of the Pole. Flying, too, was a difficult feat at times when sky and earth blended in an even grayness, blotting out the horizon. Yet they averaged 110 m.p.h. throughout the trip with clear weather most of the way.

On nearing their goal they flew into huge masses of storm clouds. Suddenly a mountain loomed dead ahead but Eielson swerved in time to miss it. Wilkins decided to land then since the storm grew more menacing. The gale was so strong that the ship stopped within 30 feet after the skis touched the snow and in a short time four feet of snow had drifted around the plane, freezing it fast to the ice. Because a wood-constructed fuselage does not transmit the cold so readily the men were fairly comfortable in the cabin, living on emergency rations and waiting five days for safe flying weather.

Supplies were running low and there were only 20 gallons of gas left in the ship so the men started to clear a runway, a job requiring six hours of shoveling. The plane was still frozen fast so Wilkins pushed the tail around to free it while Eielson kept the ship in motion to prevent re-freezing. To get aboard as soon as the plane started off Wilkins had to run from the tail to the steps leading to the hatch. He fell off on his first attempt but the pilot was unaware of the fact until he circled and saw a black spot on the snow which was the lonely figure of his companion. On the second try Wilkins hung out a rope ladder, which he carried for such emergencies, from the hatch. Again he pushed the ship free, Eielson gunned the engine and the plane began to move. Wilkins had removed his mittens to get a better grip on the rope ladder but when he grabbed at the ladder his fingers were too numb to hold it so he bit the rope with his teeth. The ship gained speed, ready for take-off, when he realized he couldn't get into the cabin before becoming airborne. He let go his hold and was struck by the horizontal stabilizer and thrown in the snow. After cleaning his eyes and mouth of snow he checked himself for injuries, luckily finding nothing more serious than all front teeth loosened.

Eielson circled and saw his companion still on the snow so he landed again. By now half the gas was gone and Wilkins had to get aboard this time. He had found

a piece of driftwood which he stood on end, leaning it against the fuselage. He then hooked one leg in the hatch and with the other he pushed on the driftwood. The tail skid had been placed on a block of snow so the ship was in flight position. It took a full minute, with wide open throttle and Wilkins straining every muscle, to break free from the ice. As the plane moved forward Wilkins pulled himself into the hatch and fell exhausted on the floor.

Minutes later, at a altitude of 3,000' the wireless towers of Spitzbergen were clearly visible, heralding the end of their journey. Since the gas supply was low the fliers chose to land at Green Harbor instead of King's Bay as they had originally planned. First to fly across the top of the world from North America to Europe, they had completed their 2,200 mile flight in 20 hours and 30 minutes. After receiving the very welcome warm hospitality of the residents of Green Harbor, Wilkins sent out the news of their safe arrival. A flood of congratulatory messages and honors came in response from all over the world, including knighthood for Capt. Wilkins, bestowed by the King of England.

SECRETARY'S REPORT

We have, sooner than expected, reached the point where we cannot accept any more members for this calendar year. We now have 173 paid members, and this together with the double subscriptions paid for by some members, copies to libraries, and sample copies sent to prospective members who did not join, has completely exhausted our supply of 200 Journals. This means, of course, that until such time as we have the money to undertake a complete re-printing of the first four issues there are no more copies available to anyone. If you value your copy, therefore, don't lose it, give it away etc., as it cannot be replaced at this time.

Complimentary copies of the Journal are now on file in seven libraries; the I.A.S. in N.Y. and Los Angeles; Air Britain, London; Royal Aeronautical Society, London; National Air Museum, Washington, D.C.; Library of Congress, Washington, D.C.; and the University of California at Berkeley.

Important: Please send your 1957 dues in as soon as possible, the final date is February 1st, 1957. Since the next Journal is due to be printed February 15th we must have the money to go ahead before it can be published. Please be reminded that all memberships expire on December 31st. This is done to eliminate as much book work as possible, and to eliminate any form of staggered membership that requires a personal reminder to each member etc. The dues remain at \$3.00, but please remember that we cannot put out four issues as thick as this one next year. This is larger because our No. 1 was thin by comparison, and has 14 more pages than No. 3.

We have much more material than can be squeezed into this issue, and again we want to thank the members for their cooperation in submitting articles. We would like to see articles from those of you who have not contributed anything so far, or at least a short letter containing information of interest to the membership.

Our special thanks to John Sloan and Warren Bodie for the outstanding report on McCook Field P Numbers which they prepared for this issue.

William T. Larkins, 26 November 1956