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FOR RELEASE July 12, 1923.

LIEUT. CROCKER'S BORDER TO BORDER NON-STOP FLIGHT

The official report on the non-stop flight from the Gulf of Mexico to the Canadian Border, made by Lieut. H.G. Crocker, Army Air Service, on May 26th, discloses several interesting facts. Lieut. Crocker took off from Ellington Field, Houston, Texas, at 5:20 a.m. Central Time, flew to the Gulf, and then turned northward. He states that while passing Middlefork, La., the clouds became so low that the plane just cleared the tree tops. At this time also the engine began to miss and splutter for about five minutes, due in all probability to some foreign substance momentarily clogging the gas line. This was soon cleared, however, and the engine never again faltered during the remainder of the flight to Selfridge Field.

Lieut. Crocker's report is as follows:

"Having been selected to make the Gulf to Border flight, different routes were studied and test flights were made in the DH-4B-1-S plane A.S. No. 22-353 which was to be used. Weather maps were consulted daily.

The course decided on was from Ellington Field to the waters of the Gulf, thence to the Border just below Detroit, Michigan, landing at Selfridge Field. This distance was greater than from other cities on the Gulf, but owing to the fact that a large, smooth field was necessary for the take off, Ellington Field was selected as the starting point.

In preparing the map used, the course was marked on each State traversed, and the desired sections were mounted on a linen strip one foot by twelve feet, the ends of which were attached to two small rollers eight inches apart in an aluminum frame. This map, showing from fifty to one hundred miles on each side of the course, was found quite necessary, especially when varying from the original course in storm areas. The total distance to be flown was divided into fifty mile sections and the total mileage was distinctly marked on each division. This map could be placed in the lap, on the side of the seat or hung on the side of the fuselage.

The plane was equipped with a long coil spring attached to the left rudder, the tension of which could be adjusted to eliminate the constant, slight pressure usually necessary on the right rudder. A small folding desk for a pad was placed on the right side on which to make notes. Two thermos bottles, one for water the other for coffee, were carried. With a main tank capacity of 240 gallons and a reserve of 28 gallons of gasoline, with 24 gallons of oil, the plane was ready for the flight.

There being no supplies at Ellington Field, a flight was made to that station Wednesday, May 23, to arrange for the servicing of the plane, receiving the latest weather forecasts and securing accommodations for the proposed flight. Because the gasoline capacity was only sufficient for thirteen hours and the minimum distance to be travelled was approximately 1200 miles, the winds and their velocity were the most important items to be considered in determining the favorableness of the weather predictions.

The weather map for Friday, May 25, showed fair conditions over the country to be covered and the predictions for Saturday were more favorable. The plane was serviced and flown to Ellington Field Friday and reserviced there with 70 gallons of commercial gasoline and 4 gallons of oil. Col. John H. Howard, Commanding Officer of Kelly Field, Capt. Chas. B. B. Bubb, Lieuts. George Roberson, Leland S. Andrews and R.D. Biggs, arrived to witness and assist in the take off.

The following weather forecast was received from Washington, D.C. at 9:30 p.m. Friday, and it was definitely decided to take off the following morning:

Jms

'Observer, Houston, Texas.

'Partly cloudy sky with possibility of widely scattered thundershowers Saturday in Louisiana and eastern Texas. North of Louisiana to Detroit there will be cloudy sky with local rains and scattered thundershowers. The winds will be gentle to moderate variable over south portion and gentle to moderate east to southeast farther north up to two thousand feet.

Signed- Mitchell,
Forecaster, Weather Bureau'

The take off was made at 5:20 a.m., central time, shortly after dawn. After touching the waters of the Gulf, the course then taken was 20° with a west wind and visibility only fair. R.P.M. 1500; temp. 85°; oil pressure, 48 lbs; altitude, 1800 ft.; speed 97 M.P.H.

The R.P.M. for the entire flight was kept at 1500, while the oil pressure varied from 48 lbs. at the start to 25 lbs. for the last 500 miles. As the gasoline supply diminished the air speed increased from 97 M.P.H. at the start to 103 M.P.H. at the end.

In order that a check could be made on the plane's flying, the performance of the engine and all instruments, and a double check on the course as taken, Lieut. Andrews, who had assisted in the plans and preparations for the flight, escorted the plane for about 150 miles.

At 5:30 a.m. the sun rose and seemed to bring with it a haze that covered the earth. Near the Sabine river at 7:05 a.m. clouds began to gather. The logging railroads of this territory were quite confusing.

While passing Middlefork, La., the clouds became so low that the plane was just clearing the tree tops. Also at this time the engine missed and sputtered for about 5 minutes due, it was thought, to some foreign substance in the gasoline line. This soon was cleared and the engine never again faltered.

A climb of 2000 ft. thru the clouds was made and a compass course followed for one hour, the height of the clouds gradually increasing to 3000 ft. Gliding thru the clouds a ceiling of 500 ft. was found. A deviation of five miles to the west had been made during this compass course. The wind had swung to the south and the course was changed to 30°.

From then on for about 800 miles between 20 and 30 rain storms were encountered on the course, taking from 3 to 20 minutes to fly thru them, but those more severe were flown around. This made it more difficult to check the course, especially with a low ceiling, poor visibility and flying at 150 to 500 ft. altitude. Due to storms there was at one time a deviation of 30 miles from the course.

Starr City, Ark., was passed at 9:15 a.m.; Forrest City, Ark., at 10:15 a.m.; Mississippi River was crossed five times, the first at Caeruthersville, Mo., and the last at Belmont, Mo., between 11:30 a.m. and 11:50 a.m.; the Ohio River was crossed at Metropolis, Ill. at 12:05 p.m.; the Wabash River five miles near its mouth at 12:50 p.m.; Washington, Ind., passed at 1:25 p.m.; Spencer, Ind., at 1:50 p.m.; Indianapolis, Ind. at 2:20 p.m.; Muncie, Ind. at 2:55 p.m.; Delphos, Ohio at 3:20 p.m.; Toledo, Ohio at 4:25 p.m. The Canadian Border was touched about one mile from Gordon, Ontario, across from Trenton, Mich. at 4:49 p.m. central time, taking 11 hours and 29 minutes from Gulf to Border. The main tank supply gave out at 4:55 central time and the reserve was used for 20 minutes. Both mentally and physically fatigued, a landing at Selfridge Field was made at 5:15 p.m., making 11 hours and 55 minutes in the air.

The wind on this flight varied greatly, with a west wind at the start thru Texas and Louisiana; a south wind in Arkansas; a southeast wind in southern Indiana, and an east wind in the eastern part of this State. While approaching Toledo, Ohio, and on to Selfridge Field, head winds from the northeast were encountered.

It was found upon draining all tanks that there were 19 gallons of gasoline and 7 gallons of oil remaining, making an average hourly gasoline consumption of 20-3/4 gallons, while the oil showed 1.42 gallons per hour. A sample of the oil was taken to McCook Field for test.

On the return trip, stops were made at McCook Field, Ohio; Scott Field, Ill.; Muskogee, Okla.; the flight finished at Kelly Field, Texas, at 5:15 p.m., Saturday, June 2, 1923."