

CIVIL AERONAUTICS BOARD

ACCIDENT INVESTIGATION REPORT

Adopted: April 6, 1955

Released: April 8, 1955

JOHNSON FLYING SERVICE, INC. - NEAR PITTSBURGH, PENNSYLVANIA,
DECEMBER 22, 1954

The Accident

At approximately 2300,^{1/} December 22, 1954, a Douglas DC-3C, N 24320, owned and operated by the Johnson Flying Service, Inc., Missoula, Montana, was ditched in the Monongahela River because of fuel exhaustion while making an approach to the Allegheny County Airport, Pittsburgh, Pennsylvania. Ten of the 28 persons on board, including one crew member, were drowned. The aircraft was damaged slightly by the water landing, but received substantial damage while it was being removed from the river.

History of the Flight

Johnson Flying Service's Flight 4844-C, December 22, 1954, was a CAM (civil air movement of military personnel) flight from Newark, New Jersey, to Tacoma, Washington, with planned intermediate stops among which were Pittsburgh, Pennsylvania; Colorado Springs, Colorado; Monterey, California; and Tacoma, Washington. The crew consisted of Captain Harold A. Poe, Captain Joseph J. Grekowiec, and Copilots Clarence E. Chapman and Charles R. Carter. Captain Robert P. Walker, the fifth crew member, was employed by the company as cabin attendant prior to the departure from Newark. The aircraft was serviced with 170 gallons of 100 octane fuel which was placed in the two main tanks in equal amounts, making a total of 225 gallons according to the weight and balance manifest. A preflight inspection of the aircraft was performed by Captain Grekowiec with no discrepancies found. According to the company's Weight and Balance Manifest the aircraft at the time of departure weighed 25,317 pounds, which was within the allowable gross weight of 25,346 pounds; the load was distributed within the prescribed limits with respect to the center of gravity of the aircraft. Prior to departing Newark, Captain Poe filed with the CAA by telephone a flight plan indicating a flight to be made in accordance with visual flight rules (VFR) to the Allegheny County Airport, Pittsburgh, Pennsylvania. The route to be followed was via Amber 7, Green 3, and Red 21 Airways.^{2/} The flying time to Pittsburgh was estimated to be one hour and forty minutes, at a true airspeed of 155 knots^{3/} with two hours and forty minutes of available fuel.

^{1/} All times herein are eastern standard and based on the 24-hour clock.

^{2/} See Attachment A.

^{3/} Where necessary distances have been converted to nautical miles and speeds to knots. The airspeed indicators of the aircraft were calibrated in miles per hour.

The flight departed Newark at 2038 with 23 passengers on board. Routine en route position reports were made and at 2206 the flight reported over Philipsburg, Pennsylvania, VFR, estimating Westover, Pennsylvania, at 2219. At approximately 2220, the Pittsburgh combined CAA station/center (INSAC and Air Route Traffic Control) heard the flight calling Altoona, Pennsylvania, radio (INSAC) on the radio frequency of 126.7 mc. As several calls to Altoona were unanswered, Pittsburgh radio attempted to contact the aircraft but was unsuccessful. Two minutes later, at 2222, Pittsburgh radio heard N 24320 calling Westover on 126.7 mc. Since Westover is a radio beacon and has no voice facilities, Pittsburgh radio again tried to contact the aircraft, but was unsuccessful. At 2225 the flight reported to Brookville, Pennsylvania, radio that it was over Westover at 2220, VFR, estimating Pittsburgh at 2252.

Pittsburgh radio received a call from the flight at 2238 asking if fuel was available at "Johnson Marker." Pittsburgh interpreted this to mean Johnstown, Pennsylvania, and replied "Reference fuel at Johnstown, they do have 91/96 octane and lower and we're attempting to contact Allegheny Airlines at Johnstown now to see if they would be open at this time of night. The Air Guide doesn't list any hours that they are open. You'll have enough fuel to land at Allegheny County, original destination, won't you, over?" The pilot advised he was not sure, and then requested that the runway lights at the Johnstown Airport be turned on. Pittsburgh radio attempted to contact the Johnstown Airport by telephone and interphone without success and advised the flight that they were unable to contact them at this time but would continue trying. At 2244, N 24320 called Pittsburgh radio and advised that it was over the Johnstown Airport. The pilot was asked to stand by and as soon as it was determined that Johnstown could not be contacted, Pittsburgh radio so advised. N 24320, at 2247, told Pittsburgh radio that it had passed Johnstown and was continuing to the Allegheny County Airport. Two minutes later Pittsburgh again asked the flight if it wished them to continue attempting to contact the Johnstown Airport. The pilot then said he would continue to Pittsburgh and asked for information on other fields where he might land. This was answered, "Douglas 4320 Pittsburgh radio. Nothing for a DC-3 Douglas 4320, it's either Greater Pittsburgh or Allegheny County, over." At 2251, Pittsburgh gave the flight the current Allegheny County weather as: Clear, temperature 20, dew-point 10, wind south-southwest 9. When asked his altitude the pilot answered 3,200 feet. He was then given the winds aloft at 3,000 feet as being 260 degrees, 10 knots. A minute later the flight advised that it was 7 miles east of the Allegheny County Airport and could see it; that it was crossing the river and could see the field lights. Pittsburgh radio then called the Allegheny County tower and advised that N 24320, a DC-3, was approximately 10 miles east, low on fuel, and was landing at that airport. The tower requested that the aircraft change to tower frequency. Pittsburgh radio called the flight at 2254, and asked it to contact the tower on 121.3 mc. In reply the pilot said that he did not have 121.3 mc. but would contact the tower on 126.18 mc. He was advised that frequency was satisfactory.

The flight immediately called the tower and requested landing information. It was then cleared for a straight-in approach to runway 27 and asked to report when 3 miles out. The weather was given as: Wind southwest variable south, calm to 10, altimeter 29.84. At 2256, the flight reported it was 3

miles east on final approach; it was then cleared to land. At 2257, the flight reported that it was out of gas. At this time the tower observed the aircraft to be approximately 2 miles from the airport on final approach. The tower immediately asked if the pilot believed he could make the field. The pilot replied, "I doubt it very much. We have both engines feathered, we are coming down over the red lights. I don't know if we'll make it or not. We are 2,000 feet." At 2258 the pilot advised, "We are going to set it down." The tower observed the aircraft make a left turn and head toward the south. It then disappeared from the controller's view below the hills southeast of the airport. Necessary calls pertaining to the emergency were immediately effected. The aircraft, heading in a southerly direction, was ditched wheels up in the Monongahela River at approximately 2300. The captain, Harold A. Poe, who was flying the aircraft, and nine passengers were drowned.

Investigation

Ditching was one and one-half miles south of the McKeesport, Pennsylvania, bridge and approximately two miles southeast of the Allegheny County Airport. The aircraft came to rest about 35 feet from the west bank of the river at a point which is 600 feet below the elevation of the airport. According to witnesses it floated for a short time and was completely submerged in approximately 15 minutes. Prior to sinking, the current of the river turned the aircraft to the left and slowly moved it approximately 450 feet downstream to a position about 75 feet from the west shore.

Following ditching all passengers were evacuated through two emergency exits, one over each wing. None of the passengers or crew received injuries during the ditching. The last person to leave the cabin was Captain Walker, who estimated that it took approximately seven minutes to get everyone out of the cabin and on the wings or fuselage. Some of the passengers could not swim and the icy waters made it difficult for even good swimmers to reach the shore.

After recovery from the river the aircraft and engines were examined and found to be capable of normal operation at the time of the accident. Each of the four fuel tanks contained approximately a gallon of fuel. Water in varying amounts found in these tanks was unquestionably the result of the aircraft's submersion in the river.

Copilot Chapman stated that the engines and aircraft functioned in a normal manner throughout the entire flight.

An examination of company records was made to determine if the aircraft had been maintained in accordance with accepted safety standards. It was found that this had been done. During the study of maintenance records particular emphasis was placed on the past condition of the fuel system and fuel quantity gauges of the aircraft. No reports of malfunctioning of these units could be found.

On December 17 and 18, 1954, N 24320 was flown from Seattle, Washington, to La Guardia Airport, New York. With the exception of Captain Walker, the

same crew flew the eastbound flight. Captain Poe was senior pilot in command on both the east and westbound flights. While in New York, Captain Poe contacted the Aircoach Transport Association (ACTA) and learned that Johnson Flying Service had a CAM flight originating at Newark, New Jersey, at 2030 on December 22, 1954, with its destination Tacoma, Washington. At that time it was thought there would be 24 military passengers for this flight. The aircraft was not serviced at La Guardia, and after a four-day layover it was ferried, on December 22, 1954, to the Newark Airport, landing there at 1855.

Captain Grekowitz occupied the copilot's seat on the ferry flight from La Guardia to Newark and said that when taxiing to the ramp at Newark the fuel gauges registered a total of 85-90 gallons. This was divided as follows: left main 35 to 40 gallons, right main 50 gallons, and left and right auxiliary tanks empty. However, Copilot Chapman stated that he thought there were 65 gallons on board prior to refueling. This was based on his observation of the fuel gauges on arrival at La Guardia; also, on what he observed from the aisleway during the flight to Newark, and, by again reading the gauges on departure from the ramp at Newark. He did not discuss the amount of fuel on board with Captain Poe or the other crew members. Upon arriving at the ramp Captain Poe ordered 125 gallons of 91 octane fuel to be distributed equally between the two main tanks, but inasmuch as 91 octane was not available, 100 octane fuel was accepted. Subsequently, when it was found that passenger and baggage weight was less than originally estimated, Captain Poe changed this order to 170 gallons of fuel instead of the 125 gallons previously ordered. The refueling crew then metered 85 gallons into each of the two main tanks, but did not stick the tanks to determine the total amount in each since the crew did not request that this be done.

The 23 passengers were checked in by a representative of Aircoach Transport Association. Each passenger's baggage was weighed and tabulated on an adding machine tape. This tape was then given to the crew, together with copies of the passengers' military orders, to aid them in preparing the weight and balance form and to serve as a passenger manifest.

Captain Poe prepared and signed the weight and balance form for the flight, and Captain Grekowitz initialed it as loader. This form indicated that 844 pounds of baggage were in the front baggage compartment and 408 pounds in the rear baggage compartment. This latter compartment, which has a maximum allowable capacity of 350 pounds, was loaded in accordance with Captain Poe's instructions. The crew stated that the total baggage weight of 1,252 pounds did not include crew baggage weights or that of their flight kit. The weight of each passenger was computed at 165 pounds and each crew member at 170 pounds. The weight of the crew's baggage was included with their weight. Following the accident, all baggage was recovered. This consisted of 23 duffel bags, 16 gym bags, and 5 crew bags.

All military baggage was completely dried and weighed by the military authorities and its total weight was found to be 1,512 pounds, 260 pounds more than that shown on the weight and balance form. As the baggage was free of mud and other debris it was unnecessary to clean it. In addition, the weight and balance listed 225 gallons of fuel at a total of 1,350 pounds; 36 gallons of oil at a total of 270 pounds; aircraft empty weight 17,800 pounds; useful load 7,517 pounds; gross load 25,317 pounds; and the maximum allowable

gross as 25,346 pounds. This form indicated that the rear compartment was overloaded by 58 pounds but that the entire load was distributed within the prescribed center of gravity limits of the aircraft.

Captain Poe filed a flight plan with the CAA prior to departure. However he did not discuss this with the copilot or prepare the required company Flight Plan and Log. It could not be determined where or how he computed the flight time of one hour and 40 minutes from Newark to Pittsburgh, or why he selected Red 21 airway for a part of the route to be flown when that airway had been discontinued since December 8, 1953. The other crew members disclaimed any knowledge of the contents of this flight plan. The Company Operations Manual states that it is the pilot's responsibility to use current airways charts for flight planning and navigation and such charts were in the flight kit on board the aircraft.

On the trip from Seattle to New York the flying of the aircraft was divided between two crews, with Captain Poe and Copilot Chapman flying three segments and Captain Grekowiec and Copilot Carter flying two segments. Just prior to departure from Newark Copilot Chapman was told by Captain Poe that they would fly the aircraft to Pittsburgh. Copilot Chapman testified that because he did not know until then that he was to fly this portion of the flight, he had not prepared in advance the required portions of the company's Flight Plan and Log. He made out this form in flight after departing Newark with some of the data supplied him by Pilot Walker, who was sitting in the jump seat. The route indicated on this form was determined without consulting Captain Poe to find out which route he intended to fly. As a result Chapman and Walker, using a current RF 8 chart, made out the Flight Plan and Log to show a route via Amber 7, Green 3, Red 13, Red 8, and Red 13 airways to McKeesport, Pennsylvania. (However, the flight plan filed by the captain specified a route over Amber 7, Green 3, and Red 21 airways to the Allegheny County Airport at Pittsburgh.) Examination of these flight plans revealed many errors, including distances, headings, radio frequencies, and airways.

The company's operations manual required as a minimum for VFR flight sufficient fuel to fly from takeoff to the airport of intended landing, plus 45 minutes of reserve fuel (60 gallons)^{3/} and an additional 25 gallons to allow for variations in performance, etc. This manual also provided that an additional 11 gallons be included for use in taxiing, engine rump, and takeoff, which was not to be shown on the flight plan, clearance, or weight and balance forms. Based on 225 gallons shown on the weight and balance manifest the fuel consumption on the subject flight averaged 96.5 gallons per hour. Copilot Chapman stated that approximately 700 h. p. was used for cruising. According to the company's operations manual, this is about 100 h. p. more than specified. Between Newark and Philipsburg Chapman advised Captain Poe of ground speed made good at each check point. He also said that when in the vicinity of Philipsburg, he advised the captain that their fuel was getting low and that to continue would mean using the reserve supply, which was contrary to company instructions.

^{3/} For flight planning, the company's operations manual specified the average hourly fuel consumption for a DC-3 to be 80 gallons.

Copilots Chapman and Carter stated that an ADF (Automatic Direction Finder) approach, using the radio beacon, was made to the Johnstown Airport. Also that when this approach was made neither the airport's lights nor the lights of the city of Johnstown were seen. Investigation disclosed that it was the custom at this airport for lights to be turned on daily at sunset. It was established that on the night of December 22, 1954, the lights of one runway, the rotating beacon, and a ceiling light were turned on at sunset and remained on all night. No witness was found who observed an aircraft in the vicinity of the radio beacon or airport at the time the flight reported being there.

Weather along the route between Newark and Pittsburgh was good, permitting the aircraft at 4,000 feet to remain well below all clouds, with good visibility along the entire route. The forecast en route winds aloft for the 4,000-foot level, available to the crew prior to departure, were as follows: Newark to Harrisburg, 310 degrees at 20 knots; Harrisburg-Altoona, 300 degrees at 20 knots; Altoona-Pittsburgh, 270 degrees at 15 knots. According to the U. S. Weather Bureau the flight encountered winds as forecast, except that the Altoona-Pittsburgh winds were 25 knots. Captain Poe advised Chapman before departure that the expected winds would be from the west-northwest at 10 to 15.

Johnson Flying Service, Inc., of Missoula, Montana, has been engaged in commercial flying for approximately 30 years. In 1953, the company began operating large aircraft in passenger service as a part of its irregular air carrier operation. Mr. William H. Lockwood, because of his previous experience in this field, was employed to supervise this new operation. After a short time Lockwood was promoted to chief pilot and operations manager and placed in complete charge of the company's transport division, the positions he held on the day of the accident. Mr. Lockwood was based in Seattle. The company used two Douglas DC-3's and one Curtiss C-46 aircraft in this phase of its business. (All pilot, company, and aircraft records except those pertaining to the maintenance of the C-46 aircraft were kept at Missoula.)

Besides the normal duties of operations manager, chief pilot, and check pilot, Lockwood flew as captain for the company approximately 50 percent of the time. He stated that because of this it was necessary for him to make one or two trips a month to Missoula. During Lockwood's employment, the flight operation of this division of the company was not given any direct supervision by his superiors.

Johnson Flying Service became a member of the Aircoach Transport Association in 1952. By contractual agreement the carrier gave ACTA the exclusive right to represent it before various government agencies for the procurement of transportation of personnel by air, with authority to enter into contracts for both official and unofficial traffic. As a result of this agreement ACTA obtained 244 trips for the company. Notification to the company by ACTA of the awarding of each contract was accomplished by means of a teletype message to ACTA's branch office in Seattle for forwarding to Mr. Lockwood; or, in the event of Lockwood's absence from Seattle, the message was sent to the company's main office at Missoula. In addition, at the termination of each

flight away from Seattle, captains were advised by Lockwood to call the nearest ACTA office for information pertinent to another assignment.

In the event a DC-3 was to be used it was agreed between the company, ACTA, and the military that this aircraft would be equipped to transport up to a total of 24 passengers plus 66 pounds of baggage for each. The carrier is paid on the basis of a specified route mileage and not on the number of passengers flown. However, if 24 passengers are to be transported, and for any reason the carrier decides all 24 cannot be taken, the remaining passengers must be transported first class to their destination at the carrier's expense. All assignments must be accepted by the carrier without regard to weather, route, distance to be flown, number of crew, or amount of fuel which can be carried.

Because Chief Pilot Lockwood was away from Seattle a considerable amount of time, and since he believed Captain Poe to be qualified, he gave him more authority than the average captain. As senior pilot in command of this flight he was responsible for crew assignments and crew coordination. On all flights captains served as their own dispatchers. Captain Poe hired Copilots Chapman and Carter at Seattle December 17, 1954, prior to departing eastbound for New York. They did not receive the ground training nor take the written examinations required by the company's operations manual.

Captain Grekowicz, who had been a copilot for the company, was making his first round trip as a captain. He received his Airline Transport Pilot rating from a company pilot, who was a designated CAA flight examiner, just prior to departing Seattle on December 17, 1954. Captain Walker was hired by Captain Poe as a cabin attendant at New York for the westbound trip to Seattle. He was a former captain for Johnson Flying Service and was furloughed in March 1954.

Analysis

The chief pilot and operations manager had many duties. Since he was frequently away from base flying another company aircraft he delegated some of his duties to Captain Poe and another pilot. These men were both made check pilots and Captain Poe was allowed to employ other pilots. No training program as such, other than ground school, was organized. Flight training was normally en route training and was given by one of the check pilots or another captain. The overall program did not insure that all pilots were proficient according to the standards set forth in the operations manual.

It is apparent that this accident was operational in nature. Many things must be considered in properly planning and completing a flight. The general conduct of this flight clearly indicates poor judgment, carelessness, and lack of supervision and training. The fact that a Flight Plan and Log was not prepared prior to departing Newark and that the copilot did not know the route to be flown was the result of poor crew coordination and flight planning.

While it is not known exactly how much fuel was on board when the aircraft departed Newark, it is apparent that there was not a sufficient amount

of fuel to fly to Pittsburgh by either of the planned routes and arrive there with any margin of safety. The elapsed time of the flight from take-off to ditching was two hours and twenty-two minutes. Considering the altitude and distance flown, and the various power settings which the copilot testified were used, together with other known factors, it is calculated that approximately 260 gallons of fuel were consumed. This would have made the aircraft overloaded at the time of takeoff.

The passengers' baggage when recovered weighed more than that shown on the manifest. In addition, the operations manual required that the baggage of all crew members and the flight kit be weighed and this amount shown on the manifest. While it is not possible to determine with precise accuracy the total weight of all the above-mentioned items, it is obvious that the aircraft was overloaded at the time of departure. The inclusion of any additional weight to the figures shown on the weight and balance manifest would have reduced the allowable fuel load below the minimum of 200 gallons required for takeoff.

Captain Poe estimated the flying time to Pittsburgh to be one hour and forty minutes. The distance, along the route shown in the CAA flight plan, is approximately 271 miles. To accomplish this in the estimated time would require an average ground speed of 163 knots. With the wind along the route forecast to be from the northwest and west averaging over 17 knots at the planned cruising altitude of 4,000 feet, this ground speed is unrealistic. Under these conditions a reasonable ground speed would be approximately 126-130 knots and would require an average elapsed time of two hours and seven minutes.

The Flight Plan and Log which Copilot Chapman prepared after departure included many mistakes, among which were: Wind directions and velocities different from those that were forecast; a higher true airspeed than is reasonable to expect for a DC-3 unless flying at higher altitudes; airways which differed from the route filed by Captain Poe; some stations, courses, and radio frequencies that did not agree with either the filed CAA flight plan or the airways shown on the Flight Plan and Log; some errors in ground speed of 13 knots or more; and an estimated total time which exceeded the one hour and forty minutes estimated by Captain Poe. The estimated ground speed used was 148 knots, whereas the actual ground speed made good averaged only 126 knots.

The company operations manual states, "The average hourly fuel consumption for a DC-3 to be used in flight planning is as follows: 80 gallons." Based on this figure the 225 gallons on board, as shown on the weight and balance manifest, should have allowed the aircraft to remain airborne for two hours and forty-eight minutes. Instead, the fuel was exhausted in two hours and twenty minutes of flight. There are many variables such as power settings used, altitude flown, and load, to mention but a few, which must be considered in order to accomplish any flight at a specified average fuel consumption.

It could not be positively determined just where the aircraft was when it reported being over Johnstown at 2244; however, if it had been over Johnstown at this time, the average ground speed from Johnstown to the point of ditching would have been about 178 knots. This ground speed is unreasonable, considering the headwinds encountered in that portion of the flight and the fact that power was reduced to conserve fuel. Copilots Chapman and Carter testified they believed they were over the Johnstown radio beacon and later over the airport area. However, when there they did not see the airport rotating beacon, runway lights, or the lights of the city. These lights were on at the time and should have been seen if the aircraft was in that vicinity. It appears, therefore, that a navigational error must have been made and that the aircraft was actually some place else. As an example, it may have been over the New Alexandria radio beacon, which is approximately 27 miles west-northwest of the Johnstown Airport and nearly on course between Westover and Pittsburgh.

One of the cardinal rules of safety which is set forth in the operations manual is, "Pilots are not to pass up a refueling facility unless they have sufficient fuel and oil to reach the point cleared within reserve limits established." On the subject flight Captain Poe was advised when the aircraft was near Philipsburg, an available refueling point, that to continue the flight would necessitate the use of reserve fuel. Again the crew demonstrated a decided disregard for the principles of safety by passing an acceptable DC-3 refueling airport.

The captain's judgment may have been influenced by his desire to accept the entire assigned payload in an effort to save money for his company. This limited the amount of fuel which could be carried and made necessary frequent and costly en route refueling stops. Because of this he may have elected to use a part of his reserve fuel to extend each leg of the flight. It is incredible that an air carrier aircraft flown by accredited personnel could be forced down for lack of fuel on a short night flight in good weather when we think of the great progress aviation has made to date, particularly with respect to pilot training, aircraft instrumentation, navigational aids, and airport lighting.

Findings

On the basis of all available evidence the Board finds that:

1. The crew, the aircraft, and the carrier were properly certificated.
2. The company did not properly check the competency of the crew in accordance with their operations manual prior to flight assignment.
3. The aircraft was overloaded at time of takeoff.
4. The flight was improperly planned, and was not conducted in accordance with the company's operations manual.

5. The captain, contrary to the company's operations manual, passed a suitable refueling facility after being advised that if the flight continued to its destination it would be necessary to use reserve fuel.

6. Weather along the route was good and approximately as forecast.

7. The aircraft was ditched in the Monongahela River, two miles from its destination because of fuel exhaustion.

Probable Cause

The Board determines that the probable cause of this accident was fuel exhaustion brought about by inadequate flight planning. Contributing factors were inadequate crew supervision and training.

BY THE CIVIL AERONAUTICS BOARD:

/s/ ROSS RIZLEY

/s/ JOSEPH P. ADAMS

/s/ JOSH LEE

/s/ CHAN GURNEY

/s/ HARMAR D. DENNY

S U P P L E M E N T A L D A T A

Investigation and Hearing

The Civil Aeronautics Board was notified of the accident at Oll0, December 23, 1954. An investigation was immediately initiated in accordance with the provisions of section 702 (a) (2) of the Civil Aeronautics Act of 1938, as amended. A public hearing was ordered by the Board and was held at the Greater Pittsburgh Airport, Pittsburgh, Pennsylvania, on January 26, 27, and 28, 1955.

Air Carrier

Johnson Flying Service, Inc., is a noncertificated irregular air carrier, incorporated in the State of Montana, with its principal place of business in Missoula, Montana. It operates under Letter of Registration No. 916 issued by the Civil Aeronautics Board and Air Carrier Operating Certificate No. 7-103, issued by the Civil Aeronautics Administration. These certificates authorize the company to transport by air persons or property internationally, overseas, and in the continental United States.

Flight Personnel

Captain Harold A. Poe, age 32, was employed as a captain by the company May 5, 1953. He was senior captain in command and a company check pilot. He held a currently effective airline transport certificate with an appropriate rating for the subject aircraft. He had a total of 7,600 flying hours, of which 1,500 were in DC-3 type equipment. His last CAA physical examination was accomplished August 23, 1954. His last equipment check was on December 17, 1954, and last instrument check on August 10, 1954.

Captain Joseph J. Grekowicz, age 26, was employed by the company as a copilot on October 13, 1953. On December 17, 1954, he became a reserve captain when he was issued an airline transport certificate for a DC-3 by a CAA-designated examiner and company check pilot. He had a total of 2,450 flying hours, of which 800 were in DC-3 type equipment. His last equipment and instrument check was on December 17, 1954, and his last CAA physical examination was on August 24, 1954.

Copilot Clarence E. Chapman, age 35, was employed as a copilot by the company on December 17, 1954. He held an airline transport certificate with commercial privileges, with an appropriate rating for the subject aircraft. He had a total of 6,200 flying hours of which 1,700 were in DC-3 type equipment. His last CAA physical examination was accomplished April 16, 1954. His last equipment check was on December 17, 1954.

Copilot Charles R. Carter, age 35, was employed as a copilot by the company on December 17, 1954. He held an airline transport certificate with an appropriate rating for the subject aircraft. He had a total of 7,400 flying hours, of which 3,700 were in DC-3 type equipment. His last CAA physical examination was accomplished August 17, 1954. His last equipment check was on December 17, 1954, and last instrument check June 28, 1954.

Captain Robert Pringle Walker, age 35, was employed by Johnson Flying Service as a captain on June 12, 1953, furloughed in March 1954, and rehired in December 1954. He held an airline transport certificate with an appropriate rating for the subject aircraft. He had a total of 8,700 flying hours, of which 990 hours were in DC-3 type equipment. His last CAA physical examination was accomplished May 20, 1954. His last equipment and instrument check was on February 13, 1954. On the subject flight he was employed as a cabin attendant.

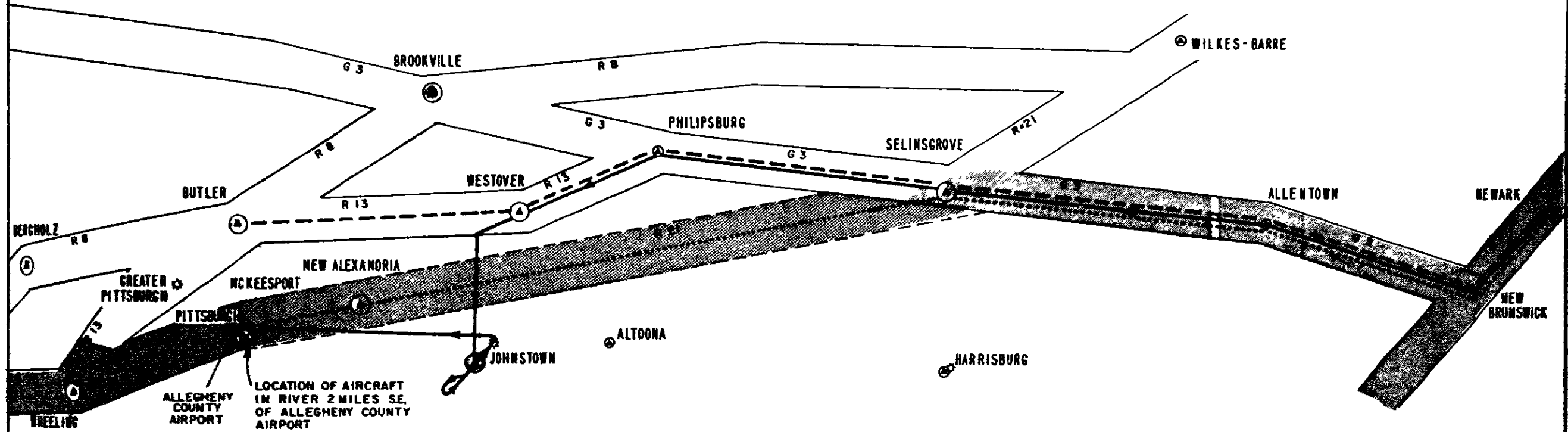
The Aircraft

The aircraft, N 24320, a Douglas DC-3C, was owned by Johnson Flying Service, Inc. The aircraft was currently certificated by the Civil Aeronautics Administration and had a total of 5,738 flying hours. It was equipped with Pratt and Whitney model R-1830-S13CG engines and Hamilton Standard 23E50-473 propellers.

AIRCRAFT ACCIDENT - PITTSBURGH, PENNSYLVANIA

JOHNSON FLYING SERVICE, INC. - DC-3C N-24320

DECEMBER 22, 1954



_____ FLIGHT ROUTE ACCORDING TO CREW AND POSITION REPORTS TO CAA.
 - - - - - FLIGHT ROUTE AS SHOWN ON FLIGHT PLAN AND LOG A 7, G 3, R 13, R 8, R 13
 FLIGHT ROUTE FILED BY CAPTAIN POE ALONG A 7, G 3, R 21

NOTE.
 AIRWAYS SHOWN ARE THOSE LISTED ON FLIGHT PLAN AND LOG, AND AIRWAYS SPECIFIED IN FLIGHT PLAN FILED WITH CAA
 RED 21 AIRWAY WAS DISCONTINUED IN DECEMBER, 1953 FROM PITTSBURGH TO SELINGSGROVE AREA
 RED 21 AIRWAY STILL EXISTS NE OF SELINGSGROVE TO WILKES-BARRE

FOR
INFORMATION

FOR INFORMATION

March 4, 1955

MEMORANDUM

TO: The Civil Aeronautics Board

CC: Director, Bureau of Safety Investigation

FROM: Director, Bureau of Safety Regulation

SUBJECT: Aircraft Accident - Johnson Flying Service, Inc., DC-3,
near Pittsburgh, Pennsylvania, December 22, 1954

In accordance with Operations Memorandum No. 57 (2nd Rev.), I am attaching for your information a copy of the report made by Mr. Edward C. Hodson, the Bureau of Safety Regulation's official observer at the accident hearing held in Pittsburgh, Pennsylvania, on January 25-28, 1955, in connection with the subject accident.

The official observer found that there were violations of several of the applicable Civil Air Regulations, and that there were no apparent deficiencies in the pertinent Civil Air Regulations which would require regulatory action. From my understanding of the circumstances, I concur in the observer's report, and find no further action by the Bureau necessary.


John M. Chamberlain

Attachment

March 3, 1955

MEMORANDUM

TO: Director, Bureau of Safety Regulation

FROM: Flight Operations Specialist

SUBJECT: Observer's Report re Accident Involving a Johnson Flying Service, Inc., DC-3, N24320, near Pittsburgh, Pa., December 22, 1954

REFERENCE: Operations Memorandum No. 57 (2nd Rev.) Section 8, Paragraph 13, Report by Official BSR Observer

Pursuant to your instructions, I attended the public hearing at the Greater Pittsburgh Airport on January 25-28, 1955, concerning the accident near Pittsburgh, Pa., involving a Johnson Flying Service, Inc., DC-3, N24320. I attended the hearing as observer for the purpose of reporting on (1) possible violations of the Civil Air Regulations and who was responsible for such violations and (2) any deficiencies which appeared to exist in the pertinent Civil Air Regulations.

My conclusions with respect to (1) and (2) above are as follows:

(1) Testimony revealed apparent violations of certain of the flight operation rules, the flight crew requirements, and the required records and reports provisions of Part 42.

a. Flight Operation Rules.

1. The pilot in command, Captain Harold Poe, did not take the proper preflight action in preparing the flight plan, selecting his route, and estimating fuel consumption, necessary for the safe operation of the aircraft as required by Section 42.51 (b).

2. The weight and distribution of the baggage aboard the aircraft was not controlled by the Captain in accordance with the approved system as required by Section 42.62.

3. Captain Poe did not provide an adequate aircraft fuel supply considering winds, normal cruising consumption, and distance to be flown, as required by Section 42.52 (a) (2).

4. Captain Poe did not comply with the company operations manual particularly as it pertains to aircraft fuel management. Section 42.60 requires that no operation shall be conducted contrary to the safety provisions of the operations manual.

b. Flight Crew Requirements.

1. The air carrier utilized flight crew members (Copilots Carter and Chapman) who had not met the appropriate training requirements prescribed in Section 42.45 as required by Section 42.40 (a).

2. The Chief Pilot (Lockwood) did not properly exercise his responsibility to see that no individual is assigned as pilot unless he has met the appropriate requirements of the Civil Air Regulations as required by Section 42.40 (b).

3. Copilots Carter and Chapman had not taken the examinations on the operations manual required by Section 42.45 (b).

c. Required Records and Reports.

The air carrier airman records containing information relative to airman qualifications were not properly maintained as required by Section 42.92.

- (2) Testimony presented at the hearing revealed that the applicable Civil Air Regulations were adequate for the military contract operations conducted by Johnson Flying Service.


Edward C. Hodson

CIVIL AERONAUTICS BOARD

WASHINGTON 25, D. C.

FOR RELEASE:

CAB 55-5

IMMEDIATE
January 18, 1955

CAB SETS HEARING FOR JOHNSON FLYING SERVICE NEAR PITTSBURGH, PENNA.

The Civil Aeronautics Board today announced that it would convene a public hearing to determine the cause of a fatal accident involving a DC-3 aircraft operated by the Johnson Flying Service, which was ditched in the Monongahela River some three miles southeast of Pittsburgh, Penna., on December 22, 1954.

The hearing will convene at 9:30 A.M. in Room M-132, Administration Building, Greater Pittsburgh Airport, Pittsburgh, Penna., on January 26, 1955. Mr. Van R. O'Brien of the Board's Bureau of Safety Investigation will serve as Presiding Officer.

Colonel Harmar D. Denny, Member of the Board, will serve on the panel, assisted by W. K. Andrews, Director of the Board's Bureau of Safety Investigation; Gordon R. Matthews, Assistant Chief, Investigation Division, both from the Board's Washington office; and Herbert V. Shebat, Investigator-in-Charge of the Board's Atlanta office.

The Johnson DC-3 was operating on a CAM (Civil Air Movement) flight from Newark, N.J. to Colorado Springs, Col., carrying 23 enlisted military personnel and a crew of five. The flight departed Newark Airport at 2038 Eastern on a VFR flight plan to Pittsburgh. At 2257, the Johnson DC-3 reported its position as three miles east of Pittsburgh, and one minute later advised they were at 2000 ft. and had run out of fuel. In the subsequent ditching of the aircraft in the Monongahela River, the DC-3 captain and nine of the 23 passengers were drowned. Weather at Pittsburgh at the time of the accident was reported as clear with 12 miles visibility.