



ENTERPRISE IN THE SKIES

The Early Years of Air Commerce in Minnesota

Gerald N. Sandvick

ON THE MORNING of June 7, 1926, howling gales swept the upper Midwest, saluting the start of the first regularly scheduled commercial air transportation between the twin cities of Minneapolis-St. Paul and Chicago. It was not an auspicious beginning. Four pilots were ready to depart from Maywood Field near Chicago and carry mail via La Crosse to Wold-Chamberlain Field at Minneapolis, while two others at Wold-Chamberlain were preparing to fly the opposite route. The four that departed Chicago flew into the teeth of the gale, and two made forced landings in southern Wisconsin, one due to a broken gas line and the other because the wind had begun to shred the fabric covering on the wings. A third plane made La Crosse but was so far behind schedule that darkness precluded going on, and the fourth pilot, veteran Emil "Nimmo" Black, navigated some of the roughest air he had ever seen and finally arrived in the Twin Cities nearly eight hours late.¹

The two Minneapolis airmen scheduled to fly to Chicago were William S. Brock and Elmer Lee Partridge. Brock loaded his mail sacks, took off at 3:00 P.M., and, using the stiff tail winds to his advantage, made Chicago in a little over four hours. Elmer Partridge followed, but nine miles southeast of the airport the savage winds clawed his aircraft from the sky. The dead pilot's undamaged mail bags were sent on to Chicago by train.

The airline that absorbed this opening-day tragedy was variously and informally called Dickinson or C. D. Airlines after its founder, Charles "Pop" Dickinson. A colorful figure who had made his fortune heading a Chicago seed company, he then retired to go into the aviation game largely for the fun of it. The bewhiskered Dickinson looked more than a little like Santa Claus, and the resemblance did not stop with physical appearance. "I am 67 years old," he said, "and I might as well spend my money for Uncle Sam and the public. That is what I say when they ask me why I want to lose money in aviation. I am trying to open the way for commercial flying." Dickinson had been involved in aviation for several years, promoting air shows and races, but had become a pilot himself only after age 60. His instructor, ironically enough, had been Elmer Lee Partridge.²

Throughout the summer of 1926 he poured more money into the Chicago-Twin Cities airmail route than he ever got back, and despite the fact that the aircraft were emblazoned with the slogan "celerity, certainty, security," he was beset by constant problems. In late June he had to make a mail flight himself because of a pilot shortage. Two of his fliers had quit, saying his aircraft simply were not safe. Dickinson fumed that "these pilots have more temperament than an opera singer," but two of them vowed "never to quit the old man."³

One of the loyal pilots was Billy Brock, but even he had reason to wonder about his dedication. At the end of a late-June mail run from Chicago he was amazed to

¹ Here and below, see Perham C. Nahl, "Six Pilots: How They Carried Out the 1926 CAM-9 Inaugural," *Airpost Journal* (New Haven, Conn.) 47 (June, 1976): 328-332. A much shorter version of this article was given as a paper at the 1984 annual meeting of the Western History Association in St. Paul.

² *St. Paul Pioneer Press*, Jan. 12, 1926, p. 1.

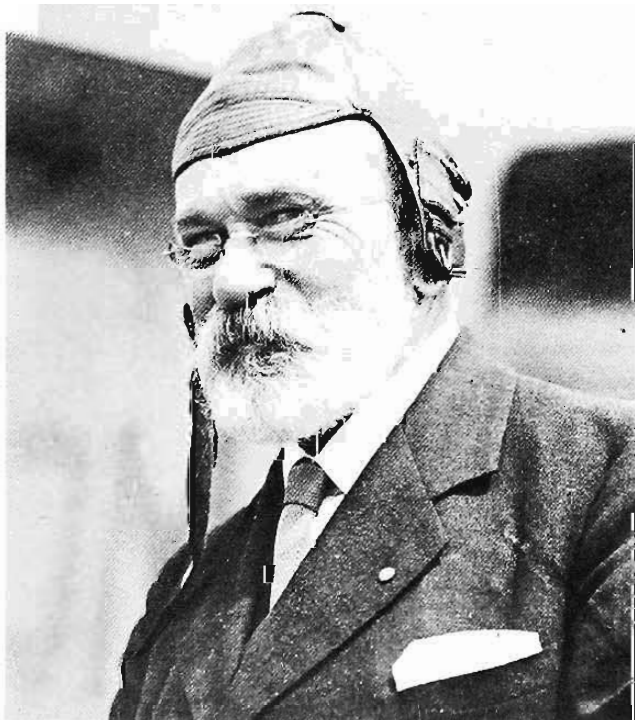
³ *New York Times*, June 23, 1926, p. 3.

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PILOT "Nimmo" Black in a Dickinson mail plane, 1926

CHARLES "POP" DICKINSON



see several head of assorted livestock grazing the runways of his destination. He circled to chase off some pigs and sheep and then swooped in past a goat and donkey and stopped "close enough to a Jersey cow to milk her." He wired back to Dickinson that he drew the line at trying to land on the back of a cow. Not wanting to lose another valuable pilot, Dickinson complained to the police chief who in turn issued 19 warrants threatening the owners with 90 days in the workhouse for allowing their animals to stray on the airfield.⁴

In mid-August, Dickinson threw in the towel. He had been operating at a daily loss of money; accidents had reduced his fleet to a single Laird biplane, and most of his pilots had quit. He therefore gave the Post Office Department the required 45-day notice that he was giving up the airmail contract and would cease operating at the end of September.⁵

DICKINSON'S abortive attempt to start commercial air service in the upper Midwest was part of a broad and enormously significant national development. The use of the airplane for purposes of commerce had not, of course, begun in the 1920s. Flying had caught the public fancy during 1910, a year that saw the first air shows in several American cities, and events in Minnesota typified the nationwide explosion of interest in the new science of aviating. Clearly there was big money to be made in exhibition flying, and for the next 30 years a major part of aviation would be aerial teams performing at fairs as well as individual barnstormers doing stunts and offering rides wherever business could be found.⁶

There were occasional attempts in the years before World War I to use the airplane for more practical pursuits. One example was Hugh Armstrong Robinson's flight down the Mississippi. Robinson, an experienced and well-known aviator, who was hired by a group of St. Louis businessmen, was to fly the length of America's great river to New Orleans, carrying a small amount of mail from town to town along the route. The flight was largely a spectacle, but by picking up and dropping off mail Robinson made one of the earliest airmail flights in the country and the first in the up-

⁴ *New York Times*, June 27, 1926, sec. 2, p. 19.

⁵ Either party to a government airmail contract could withdraw after giving 45-days' notice; *Senate Documents*, no. 70, 72nd Cong., 1st sess., serial 9509, p. 219.

⁶ The literature on airline and airmail development is voluminous: see, for example, R. E. G. Davies, *Airlines of the United States since 1914* (Washington, D.C.: Smithsonian Institution Press, 1984); Carl Solberg, *Conquest of the Skies* (Boston: Houghton Mifflin, 1979); Donald Dale Jackson, *Flying the Mail* (Alexandria, Va.: Time-Life Books, 1982). On early Minnesota air shows, see Gerald N. Sandvick, "The Birth of Powered Flight in Minnesota," *Minnesota History* 48 (Summer, 1982): 51-59.

per Midwest. But flights of this kind, despite their pioneering nature, remained more in the realm of entertainment than of transportation.⁷

There were a number of factors that retarded the early use of airplanes for passenger transportation. Probably the main reason for this was a geographical one. While distances in the nation are large, there were no long, over-water routes to hinder efficient railroad service, and well before 1920 major cities were linked by an excellent rail system. In contrast, airplanes and airports were still in their infancy. The airports of the 1920s were apt to be a few acres of more or less level sod and some drafty sheds. The aircraft were, to put it mildly, uncomfortable: soundproofing was accomplished by stuffing cotton in one's ears and ventilation by opening a window; service from the flight crew was usually little more than the copilot walking back, collecting tickets, and giving a waxed bag and a vial of ammonia to anyone who looked green around the gills. Even the larger aircraft could not carry enough passengers to be profitable. The standard airliner of the late 1920s, the Ford Tri-motor, could carry 12 or 14 in high-density seating.

Finally, aircraft of the period were also slow. Although the Ford and other types might have cruising speeds of over 100 miles per hour, when stops were figured in, the average speeds over a route were more like 80 mph. As one historian has aptly observed, "This was not a spectacular improvement over express trains and certainly not enough to draw large numbers of passengers away from the luxury of the typical American Pullman trains."⁸ The result was that for the first half-dozen years of the 1920s, air transport throughout the U.S. was almost exclusively devoted to airmail development directly run by the government.

THE UNITED STATES government embarked on its airmail activities in the spring of 1918 with an experimental route from Washington to New York that was flown by army pilots and aircraft. In August, however, the Post Office Department took over operations and began to develop an ambitious plan for a transcontinental airmail route. Equipment consisted of several aircraft types, but most numerous by far was the De Havilland DH-4, a World War I British design built un-

der license in the United States and powered by a 400-horsepower Liberty engine. The De Havillands were modified for mail service by replacing the front cockpit with a rainproof mail compartment and rigging the controls so that the pilot flew the machine from the rear seat. Thus modified, the aircraft could carry 400 pounds of mail for about 300 miles at a cruising speed of just over 100 mph. The DH-4 was an obsolete aircraft to which pilots attached the morbid sobriquet "flaming coffins" because the gasoline tank was close to the pilot and if it ruptured in a crackup, the results could be unfortunate.⁹

The transcontinental air route opened in several stages between May, 1919, and September, 1920, and followed a line from New York westward through Cleveland, Chicago, Omaha, Cheyenne, Salt Lake City, and Reno to its termination in San Francisco. During 1924 portions of the airway were even lighted with beacons to allow night flying, with the result that by the mid-1920s airmail transportation was on a solid footing in the United States. Over the long transcontinental route the airplanes could beat the fastest mail trains by about 22 hours.¹⁰

The driving force behind the airmail was Assistant Postmaster General Otto Praeger, whose goal was to tie as many cities into the system as possible. In 1920 he made the decision to add two feeder routes which would tie into the transcontinental trunk line; one was to link St. Louis to Chicago, and the other would run from Minneapolis-St. Paul via La Crosse to Chicago. Praeger visited Minneapolis in early May, 1920, to coordinate the planned service with local postal officials and to inspect the Twin Cities landing field. The airmail service would be, he said, "for experimental purposes," and then added, prophetically, "I would much rather see it let on contract as this would help commercial aviation, which we must foster."¹¹

The entry of private carriers into mail transportation would not come for another half dozen years, but the Post Office itself was now ready to give the Twin Cities its first regular air service. Communities included in the airmail routes at that time considered it an enormous honor, and there was in the Twin Cities an outpouring of civic pride. William F. Brooks, a state senator who headed a group called the Twin Cities Aero Corporation that promoted aviation, felt the new service would greatly aid economic activity. Business could be done with more speed; more money could be made in interest on accounts in banks out of the area; and Minneapolis and St. Paul would just be in a better commercial position in many ways.

A good landing site was available although a few improvements were necessary. It was known as Speedway Field but was renamed Twin Cities Municipal Field and was at the same site as the present Minneapolis-St.

⁷ A day-by-day account of Robinson's flight is in the *Minneapolis Journal*, Oct. 17-24, 1911.

⁸ R. E. G. Davies, *A History of the World's Airlines* (London: Oxford University Press, 1964), 39.

⁹ For specific data on the DH-4, see A. J. Jackson, *De Havilland Aircraft since 1915* (London: Putnam, 1962), 38-44.

¹⁰ Donald B. Holmes, *Air Mail, An Illustrated History, 1793-1981* (New York: Clarkson N. Potter, Inc., 1981), 110.

¹¹ Here and below, see *Journal*, May 9, 1920, p. 11.

Paul International Airport. In 1915 a group of auto racing promoters had built a two-and-one-half-mile concrete oval track in the expectation that Minneapolis could emulate Indianapolis. Auto races were held in September, 1915, and in the following two summers but the poorly built track was rough and the enterprise plagued by poor management. In 1917 the scheme went bust. For a few years local farmers rented the land for cornfields; for a time the land was a pig farm, which the neighbors not surprisingly found obnoxious. The site, a flat and unobstructed 342 acres close to both cities, was an obvious candidate for an airfield. In 1919 groups of aviation-minded citizens in both cities worked through the two chambers of commerce and reached agreement on the Speedway site. By April, 1920, the leasing legalities with the owners of the property had been arranged, and the Twin Cities had an official airport in time for the advent of mail service.¹²

THE ARRIVAL of the first mail plane on August 10 was the centerpiece of an aerial circus. Several local pilots met the twin-engined Martin bomber south of the airfield and escorted it in. Shows of aerobatics followed, and there was a parachute jump by Charles "Speed" Holman, a local flier who had acquired some national fame as a stunt and racing pilot. The arrival, however, was only a demonstration run. The airmail service was stretched thin, and no matter how eager for regular runs to start, Twin Citians would wait another three-and-one-half months.¹³

The anticipated regular service finally began on November 29, 1920, when William L. Carroll, a young ex-army pilot and a Minneapolis native, arrived from Chicago shortly after 2:00 P.M. with 175 pounds of mail. On the same day E. Hamilton Lee, who had pioneered the Chicago-St. Louis route, made the first regular mail flight from the Twin Cities to Chicago. Both flights were uneventful although Lee did encounter fog most of the way.¹⁴

Over the next seven months Post Office pilots would fly the mail daily, except for Sundays and holidays, through some of the worst winter weather in the nation. Forced landings due to weather or mechanical failure were commonplace, and close encounters with disaster were simply a part of the job. A few days after Christmas, 1920, pilot Lee was heading for Minneapolis at extremely low altitude. "I stayed close to the ground to avoid the wind," he explained later. "I had to slip around the hills. . . . I got so close to the Mississippi . . . that I almost touched the ice." Near Winona two men evidently watched the low-flying aircraft with alarm, and the pilot, unwisely it turned out, watched them watching him. "I was wondering why they were running and watched them so intently that I did not look to see where I was going. When I struck the tele-



CHARLES "SPEED" HOLMAN for whom the St. Paul airfield was named after his death in a 1931 crash.

phone wires . . . I knew it was something serious." With "at least 150 feet" of telephone wire snarling the propeller, Lee's machine went straight into a looming woods and was totally wrecked. The dazed, but otherwise unhurt Lee crawled out, hailed a nearby farmer, and got a ride into Winona where he and his mail bags finished the trip to the Twin Cities by train.¹⁵

The airmail pilots prided themselves on showing the understated élan that a later generation would call "the right stuff." Lee's summary of his crash upheld the traditions of the fraternity: "It was a real thriller, but I wouldn't care to go through it again. . . . Am I going to get out of the game? I should say I am not. . . . I

¹² Theodore Wirth, *Minneapolis Park System, 1883-1944* (Minneapolis: Park Board, 1945), 293, 296.

¹³ *Pioneer Press*, Aug. 8, 1920, sec. 1, p. 6.

¹⁴ Holmes, *Air Mail*, 115.

¹⁵ Here and below, see *Journal*, Dec. 20, 1920, p. 17.

could start out on a trip again today if it were necessary."

Unfortunately such mishaps did not always end in semi-humorous close shaves. During this period, airmail pilots were being lost at an average of one each month, but in one terrible week in February, 1921, two crashes killed four airmen on the Twin Cities-to-Chicago route alone.¹⁶

Shortly before noon on February 3, pilot Kenneth Stewart and his mechanic, George Sampson, took off for Chicago, flying a twin-engine version of the De Havilland DH-4. They had climbed to 1,500 feet when, near Mendota, an engine quit. The De Havilland could not fly on a single engine, but Stewart attempted to turn in the vain hope of getting back to the airport. Losing altitude rapidly, the aircraft nose-dived into a field at a 45-degree angle. Its descent had been observed at the airport, and Lee jumped into his ship and made for the crash site which he circled until a ground party could arrive. Although Sampson survived, Stewart was dead, and the De Havilland was a total loss. The mail was picked up and sent on to Chicago. It was announced that there would be no break in the daily schedules because of the accident.

Six days later, a Junkers-Larson (JL)-6 mail plane left Chicago but landed at Lone Rock, Wisconsin, to outwait a heavy snow squall. Resuming its flight toward the Twin Cities, it arrived at La Crosse for a fuel stop and circled the field as the pilot began to descend from 2,000 feet. At about 500 feet, the aircraft suddenly went into a dive and burst into flame on impact. Killed were mechanic Robert B. Hill and pilots Arthur Rowe and William L. Carroll.

THE CRASH caused shock waves that affected the airmail service both locally and nationally. The death of 22-year-old Carroll was an especially bitter pill since he was something of a local hero. St. Paul Aero Club president, Lucius P. Ordway, issued a strong statement accusing the Post Office of mismanagement and of foisting dangerous airplanes on its pilots. Minnesota Governor Jacob A. O. Preus sent a telegram to Postmaster General Albert Burleson saying that the killing of the three fliers was tantamount to manslaughter and that while Minnesota needed airmail service, it would be better to discontinue it than to sacrifice more lives.¹⁷

The problem was that the De Havillands were wear-

ing out, and the JL-6 had had a troubled past. It was a modification of the German Junkers F-13 and for its day was a radical design. A cantilevered low-wing monoplane, it was built entirely of aluminum and could carry over twice the payload of the De Havilland on half the horsepower, using low-grade gasoline. It seemed that the JL-6 was the answer to greater efficiency, and the Post Office had bought eight of them. If the manufacturer's claims sounded too good to be true, they were. In August and September, 1920, inflight fires destroyed two aircraft, killed four men, and nearly killed several others. The JL-6 was withdrawn and supposedly fixed, the trouble having been identified as a faulty type of a gas line. Not wanting to give up on its miracle plane, the Post Office in late 1920 ordered them back into service. They were unpopular with the pilots, and Carroll had expressed reservations about the aircraft prior to his fatal flight. The probable cause of the tragedy was gasoline leaking from a faulty fuel line which caused an inflight fire and loss of control. In any event, the JL-6 was now withdrawn for good.¹⁸

The accident became a national issue when Minnesota Congressman Halvor Steenerson raised the point of aircraft safety, questioned the legal authority of the Post Office to operate airmail at all, and then moved to slash \$800,000 from that budget. Since Steenerson happened to chair the House Post Office Committee, his opinions were of more than passing interest to those involved in the airmail service.¹⁹

The Post Office fought back, blaming the accident on pilot error and defending the use of the JL-6. Finally, one of the airmail chieftains upheld the greatest of all bureaucratic traditions when he opined that, "If the people are going to blame anyone . . . the responsibility must be put on Congress for that body refused to appropriate money for new airplanes while the army and navy have large numbers."²⁰

The crash near La Crosse had the effect of lifting the lid from a kettle of doubt and criticism that had been brewing over the airmail service for some time. Congressional budget consideration was imminent, and the whole enterprise in February, 1921, was in danger of cancellation. The airmail, however, had its defenders as well as critics, and in the end probably was saved by a spectacular 33-hour transcontinental mail delivery. Flying day and night through terrible weather, exhausted pilots brought the mail from San Francisco to New York in less than half the best train time. The declining reputation of airmail was reversed, and Congress voted the funds for it to continue.²¹

It was not enough to save the first route in the upper Midwest, however. Four men dead and eight aircraft lost had made the Twin Cities-to-Chicago route a costly one, and the Post Office needed its resources for the all-important transcontinental route. On March 4, 1921,

¹⁶ Here and two paragraphs below, see *Pioneer Press*, Feb. 4, p. 6, Feb. 11, p. 1, 1921.

¹⁷ *Pioneer Press*, Feb. 11, 1921, p. 1, 2.

¹⁸ *Journal*, Feb. 25, 1921, p. 11; Jackson, *Flying the Mail*, 60-62.

¹⁹ *Pioneer Press*, Feb. 12, 1921, p. 1.

²⁰ *Pioneer Press*, Feb. 12, 1921, p. 2.

²¹ Here and below, see Holmes, *Air Mail*, 118-124.

Woodrow Wilson's administration was replaced by that of Warren G. Harding, and shortly thereafter, the new airmail chief, Edward H. Shaughnessy, announced the cancellation of all feeder routes as a budget-saving measure.

The ultimate reason for the cutback was summarized by airline historian R. E. G. Davies: "Most business mail was despatched towards the end of the day and so the normal overnight rail service was quite adequate to ensure delivery by the first post next morning. But this did not apply on the 2,600-mile transcontinental route, where aeroplanes could save considerable time, if operated efficiently."²²

At noon on June 30, 1921, the last airmail flight arrived at Twin Cities Municipal Field with a load of 18,000 letters, and Minnesota's first regularly scheduled air transportation service came to an end. A foundation had been laid, however. Civic pride and enthusiasm for having air service had been drummed up, airfields had been constructed, and, most of all, the aviators had shown that scheduled service could be flown even in upper midwestern winter conditions. For the next five years there would be only sporadic attempts to use aircraft for transportation. Whisky-running from Canada was popular in these Prohibition years, for example, and the airplane was a splendid vehicle for quick border crossings.²³

A number of more legitimate enterprises, however, did attempt to make use of the airplane's potential. During a railroad freight strike in 1920, the Dayton Company, a Minneapolis department store, contracted with a local firm to fly cargo from New York. In the spring of that year, Hugh Arthur, Dayton's advertising manager, contacted William A. Kidder, who owned a handful of surplus aircraft, operated an airfield at Snelling and Larpenteur avenues in St. Paul, and was

eager for the business. He had "Dayton's Delivery" painted on the sides of two of his aircraft and sent them off to New York piloted by Charles Keyes and Ray S. Miller. They returned to Minneapolis carrying 400 pounds of cargo each, which the Dayton Company, mindful of an opportunity to promote the very latest in fashion, gave special attention. The aircraft landed at Parade Stadium, the wings were taken off, and the fuselages were then ceremoniously towed to the department store, where they were unloaded and the merchandise put on display.²⁴

Another commercial use of the airplane in the 1920s was to save transportation time for busy executives in what today would be called corporate aviation. In 1928 the Willhelm Oil Company located on Hampden Avenue in St. Paul purchased a Waco 10 biplane. The company distributed Willoco brand lubricating oils throughout the Midwest and as far north as Winnipeg. Sales vice-president E. L. Gutterson hoped that flying around his territory would save as much as a week on some trips and allow him to expand into the Canadian market more fully. With a probable eye toward linking its business with Charles A. Lindbergh's Paris flight, the firm gave the Waco the astonishingly dull name, "The Spirit of Lubrication."²⁵

AIR TRANSPORTATION as a regular and reliable business did not return to Minnesota until 1926. The

²² Davies, *World's Airlines*, 41.

²³ *Journal*, June 30, 1921, p. 1.

²⁴ Here and below, see William A. Kidder, "Advertising Flights for Merchants," unpublished, undated manuscript, copy in author's possession; *Journal*, May 10, 1920, p. 1; Noel Allard, "The Dayton Company: Air-Minded Marketing through the Years," *Minnesota Flyer*, June, 1986, p. 16-17.

²⁵ *Aviation* (New York) 24 (Mar. 12, 1928): 637.

HIGH FASHION from New York was flown to the Twin Cities in planes such as this one piloted by Ray S. Miller.



impetus for this new surge of activity was the passage by Congress of the Air Mail Act of 1925. More commonly called the Kelly Act after its sponsor, Representative Clyde M. Kelly of Pennsylvania, the new law was basic to the evolution of American air transportation. It authorized the Postmaster General to determine air routes, contract with private carriers to fly mail over those routes, and pay them a subsidy. No other event so clearly and directly encouraged private companies to enter into air transportation, and it was not long before passengers were being carried along with the mail. When that happened, the modern airline industry, already warming up, was ready for takeoff.²⁶

The immediate result of the Kelly Act was that the Post Office, in late 1925 and early 1926, sought bids from companies to fly the mail over a nationwide system of Contract Air Mail routes, or CAMs as they quickly became known. CAM 9 was advertised in October, 1925, with the requirement that the mail plane leave Chicago after the arrival of the inbound flight from New York and then proceed to Minneapolis-St. Paul by way of Milwaukee and La Crosse in the morning with a return flight via the same cities in the afternoon. In January, 1926, Dickinson was awarded the CAM 9 contract which gave birth to the airline he operated from June until September.

Dickinson's announcement that he would give up the CAM 9 route created a small problem and a large opportunity for Louis Hotchkiss Brittin. Born in Connecticut and educated in the East as an engineer, Brittin moved to Minneapolis in the early 1920s to supervise construction of a large wholesale distribution complex at East Hennepin and Stinson Boulevard known as the Northwestern Terminal Company. After successful completion of that job and another project, the construction of a power dam on the Mississippi, Brittin went to work for the St. Paul Association. As head of that organization he actively promoted the development of the airport for that city.²⁷

Brittin quickly began to contact investors in order to raise the capital necessary to create a new airline and bid on the Minneapolis-to-Chicago mail contract. Being well placed in St. Paul business, he was fully aware that the businessmen of the city wanted the airmail to

continue. Through William B. Mayo of the Ford Company, Brittin was also invited to meet with a group of interested businessmen at the Detroit Athletic Club. By August, 1926, sufficient capital had been raised from the combination of St. Paul and Detroit investors to incorporate Northwest Airways in Michigan.

The new company now sent a bid to the Post Office that was accepted on September 4, although the actual contract was dated September 7. As it turned out, Northwest was the sole bidder. The contract called for six round trips per week from Chicago to the Twin Cities via Milwaukee and La Crosse; the airline would be paid \$2.75 per pound of airmail carried.²⁸

The officers and directors of the new airline were drawn from the ranks of the Minnesota and Michigan businessmen who had provided the capital to start it, but the key position was that of vice-president and general manager. That post was taken by Louis Brittin who, for the next eight years, would be the operating head of Northwest. The ground staff included Andrew J. Hufford, chief mechanic, and three assistants plus Julius Perl, Brittin's clerk and general right-hand man. Perl, who had worked for Brittin at the St. Paul Association office and moved with him to the airline, recalled him as "dynamic, intelligent, honest, a gentleman, tough in working toward his goals but wonderful to work for."²⁹

The flight section of the company was as modest as the nonflying complement. Three pilots—Charles "Speed" Holman as chief pilot, Robert W. Radall, and David L. Behncke—completed the flight staff. An early financial voucher shows that each pilot earned \$75.00 per week. Indeed, the entire list of Northwest employees numbered nine with a monthly payroll of \$838.43. Brittin is not listed and did not draw a salary from the airline. For the first several months he contin-



LOUIS
HOTCHKISS
BRITTIN

²⁶ *Statutes at Large*, 69th Cong., 1st sess., v. 43, p. 805.

²⁷ Here and below, see Biography file (Brittin) in National Air and Space Museum (NASM), Washington, D.C.

²⁸ *New York Times*, Sept. 5, 1926, sec. 1, p. 10; *Senate Documents*, no. 70, p. 195.

²⁹ Interview of Julius Perl by the author and Noel Allard, Jan. 29, 1985, notes in author's possession. On company salaries, here and below, see Northwest Airways, voucher no. 21, Nov. 30, 1926, in Northwest Airlines, Inc. Records, division of library and archives, Minnesota Historical Society, St. Paul.



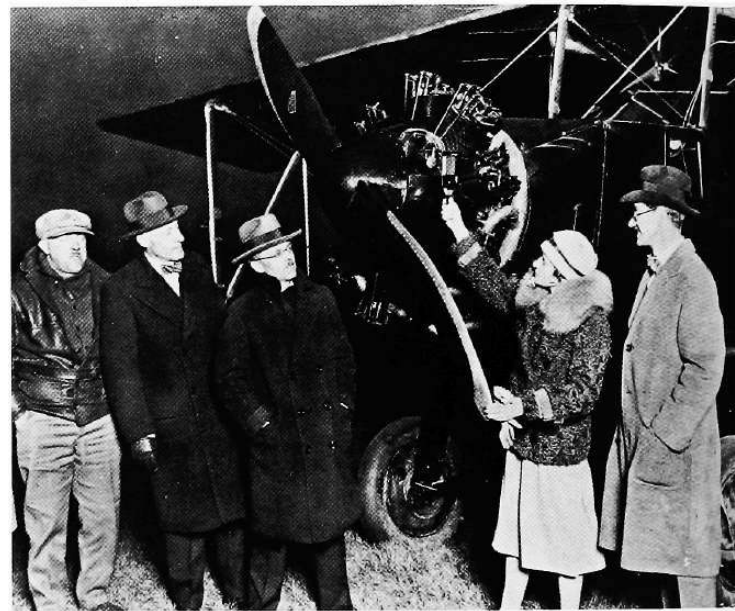
THE NORTHWEST Airways hangar at Wold-Chamberlain field, with a Stinson biplane in foreground; Ella P. Leach, wife of the Minneapolis mayor, christens a newly delivered Stinson as pilot David Behncke, William A. Kidder, James S. Lincoln, and William B. Stout look on.

ued as head of the St. Paul Association and was paid by and operated out of the office of that organization.

Northwest was scheduled to begin operations on October 1. William Kidder, who earlier arranged the cargo transportation for the Dayton Company, agreed to lease two of his airplanes to the new airline: a 90-horsepower Curtiss Oriole and a World War I vintage Thomas-Morse Scout. With these two open-cockpit biplanes, Northwest started flying the mail on October 1, 1926. Three Stinson Detroits, capable of carrying mail and three passengers in completely enclosed cabins at 85 mph, arrived on November 1. One was flown in by Eddie Stinson himself; Speed Holman flew the second one in the next day, and both were pressed into service immediately.³⁰

For the next nine months Northwest flew the mail profitably and without major mishap. Since the government paid for each pound of airmail carried but did not closely scrutinize just what was being mailed, cargo was sometimes slightly bizarre. Kidder had several old propellers and said, "we revarnished them, had them lettered 'USE AIR MAIL' and mailed them to different postmasters for window display. These propellers in their crates weighed close to 100 pounds so every time we mailed one of those props we realized about a hundred dollars profit."³¹

Northwest's first passenger flight, with appropriate fanfare to mark the historic occasion, was made with only mild embarrassment on July 5, 1927. The first stop, however, was unscheduled—over Hastings, a clogged fuel line forced a landing. The problem was quickly fixed, but the Stinson could not lift itself, pilot Holman, the mail, the fuel, and two passengers from



Hastings' small field. The passengers went back to St. Paul by automobile; Holman then took off, flew back to St. Paul, collected his two undaunted passengers, and tried again.³²

The second try went better. A brief stop was made for lunch and ceremonies at La Crosse, and the trio then battled heavy winds and rain eastward across Wisconsin. Milwaukee was reached, albeit somewhat behind schedule, and an uneventful hop to Chicago completed the trip. The next day passengers were carried

³⁰ David R. Lane, *Aircraft in Northwest Airlines' History* (Bloomington, Minn., n.d.) n.p.; David Galbraith, "The Aircraft History of Northwest Airlines," *American Aviation Historical Society Journal* 21 (Winter, 1976): 241-256.

³¹ Here and below, see Kidder manuscript, section entitled "Henry Ford and Northwest Orient Airline," 3, 4.

³² Here and below, see *St. Paul Dispatch*, July 5, 6, 1927, both p. 1; *Journal*, July 6, 1927, p. 11. The passengers were Byron G. Webster of the St. Paul Association and L. R. S. Ferguson, president of the St. Paul City Council.

on the scheduled flights in both directions, including a Miss Hazel Hart of Brooklyn, New York, who became the airline's first woman passenger.

For the rest of the decade the Northwest story was one of steady growth. Added routes provided weekly service to Winnipeg via Fargo and later in 1928 from Milwaukee north to Green Bay; by early 1929 two flights per day were being run to Chicago. One industry magazine reported in April that Northwest had flown 9,200 passengers without injury to anyone or loss of a single mail pouch. By the end of the decade, the airline added larger aircraft—particularly Ford Trimotors carrying up to 14 passengers at 105 mph and several seven-passenger Hamilton Metalplanes. On the purely financial side, the spring of 1929 saw the airline become an almost entirely Minnesota company when Twin Cities businessmen bought out the original Detroit investors and established the airline's corporate headquarters at the Merchant's Bank in St. Paul.³³

With Northwest's early reputation for safety, efficiency, and reliability, there was small chance that the government would consider giving the CAM 9 contract to anyone else. In the early years that, as much as anything, was the key to Northwest's survival through the depression of the 1930s. The flying public, although its numbers were growing, was still far too small for an airline to succeed by carrying passengers alone.

ALTHOUGH Northwest Airways may have had a lock on the mail profits, there were other factors that prompted several different airlines to be created in the upper Midwest. Primary among these was Charles Lindbergh's nonstop flight from New York to Paris in 1927, which instantly made him the most famous aviator in the world and created an "airmindedness" in American culture that took the country by storm. One

³³ *Aviation* 25 (April 6, 1929): 1113; Galbraith, "Aircraft History," 242.

³⁴ Edward Pearson Warner, *The Early History of Air Transportation* (Northfield, Vt.: Norwich University, 1938), 53-54. For general histories of this period of aviation, see Davies, *Airlines of the U.S.* and Roger E. Bilstein, *Flight Patterns: Trends in Aeronautical Development in the United States, 1918-1929* (Athens: University of Georgia Press, 1983). Biographies of Lindbergh include Kenneth S. Davis, *The Hero* (New York: Doubleday, 1959) and Walter S. Ross, *The Last Hero* (New York: Harper & Row, 1964). Many people persist in the notion that Lindbergh was the first to fly the Atlantic; he was actually the 79th person to cross by air, but the first to do it solo and to cover the New York-to-Paris distance nonstop.

³⁵ On Jefferson's foray into the airline business, here and three paragraphs below, see *Journal*, Mar. 28, p. 27, May 24, p. 19, July 13, p. 15, July 15, p. 4, Dec. 6, p. 18—all 1928; *Aviation* 24 (June 18, 1928): 1772; William T. Larkins, *The Ford Story: A Pictorial History of the Ford Tri-Motor* (Wichita, Kans.: R. R. Longo Co., 1958), 26.

writer, close to that era, commented that "No one who lived through the extraordinary period following that flight will ever forget it. The American people gave way to a veritable orgy of air-mindedness, and the first great aviation boom was fairly launched. . . . Scores of airlines were proposed, and many were financed and actually started operations, with mail contracts if they could get them but in many cases with no kind of government support. In the summer of 1929, the Department of Commerce listed 44 operators of scheduled transport routes."³⁴

The first Minnesota firm to start an airline without the security of a mail contract was, appropriately



A JEFFERSON AIRWAYS Ford Tri-motor was the vehicle of choice for this group of northbound fishermen.

enough, one that had been involved in transportation for several years. The Jefferson Highway Transportation Company's president, Edgar F. Zelle, purchased a \$45,000 Ford Tri-motor with the intention of operating two flights each day from the Twin Cities to Rochester and return. The company saw this as the first step toward supplementing its bus service with an airline.³⁵

By late May Jefferson Airways, Inc. had been created as a division of the bus company and Arthur R. Helm of Minneapolis became operating manager. A former sales manager of the Russell Miller Milling Company, Helm went to Detroit to observe the construction of the Ford Tri-motor, to take flights, and generally gain aviation experience. The Ford was actually delivered in early July, 1928, and prospective passengers could marvel at individual chairs, washrooms

with running water, clear glass windows that could be opened in flight by passengers, electric lights, and even cabin heat so that Minnesotans need not bundle up for winter flying.

The company hoped that the 45-minute air service would be "used extensively by the large number of doctors traveling through the Twin Cities to Rochester from all parts of the country." Between the scheduled flights, sightseeing hops would also be given. The schedule was inaugurated on Friday, July 13, 1928, and if busy physicians were not yet lining up for the flights, a dozen Minneapolis Rotarians flew to Rochester to have lunch with brother members of that city's club. Later that day four Minneapolis businessmen took the afternoon flight to spend the weekend playing golf with friends in Rochester and flew back on Sunday.

Throughout the summer and autumn, Jefferson operated its early example of a commuter airline. But in December Zelle announced that he was dropping the service, stating simply that there was not sufficient business to make it profitable. The reason, no doubt, was that the Ford could carry 14 passengers and there were just not enough people willing to pay the \$20.00 round-trip fare. The Ford Tri-motor cruised at about 100 mph but when airport-to-downtown time was factored in, the time saved was probably not significant over land transportation. In 1929 Jefferson sold the plane to an up-and-coming Ohio airline, Embry Riddle of Cincinnati, and Jefferson scuttled its airline.

JUST A YEAR after Jefferson left the airline business, another ground transportation company attempted to run air service to the Twin Cities. This time it was Yellow Cab Airways, incorporated in Des Moines in the spring of 1928. Started by the head of the local Yellow Cab company, Russell Reel, the firm began with the usual assortment of small airplanes but in the summer of 1928 took delivery of a Fairchild 71, a modern high-wing monoplane that could carry seven passengers over a range of about 900 miles. All of the company's aircraft were painted the standard Yellow Cab colors, yellow wings and a black fuselage. Reel's plan was apparently to offer local service in central Iowa at first but to expand into a more regional market by creating a route from Kansas City to Minneapolis via Des Moines and Mason City. Reel thought Yellow Cab could make a profit on a passenger line by making connections with other, larger airlines.³⁶

The following spring this route was begun with Yellow Cab's Fairchild making its first flight to Minneapolis on May 6. No inaugural flight in those days happened without a degree of ceremony, and the Fairchild landed at Wold-Chamberlain Field piloted by Art C. Goebel, a nationally famous flyer who, in 1927, had won the Dole Race, a California-to-Hawaii air race. A

delegation of local business people welcomed the pilot and his four passengers at a brief lunch during which they "chatted hurriedly about air transportation." One local man said that he wanted to "see the day when this city has one [airport] on Nicollet Island to say nothing of amphibians landing in the Mississippi only a few minutes from the loop." Another member of the delegation was Julius Perl, who was still involved with aviation activities on behalf of the St. Paul Association. In June, 1929, he flew to Des Moines to ask Reel to extend service beyond Minneapolis to St. Paul's municipal airport. Perl recalled that Reel readily agreed, as it was simply a matter of getting all possible business.³⁷

Yellow Cab operated its airline between Kansas City and the Twin Cities during the summer of 1929, with stops at Des Moines and Mason City in all flights. Fares were \$12.00 to Mason City, \$18.00 to Des Moines, and \$33.00 to Kansas City, and each passenger was allowed 25 pounds of baggage. The schedule also contained a section explaining to passengers "What Holds the Airplane Up?" and instructing them on "How to Get Real Enjoyment from Your Flight." This latter section ran to a series of eight specific points, the first being "Don't Worry. There is absolutely nothing to worry about." Other advice included a plea for passengers to be patient as the pilot taxied across the field to take off into the wind, and a reminder that banking and turning in the air were quite natural motions. "Take the turns naturally with the plane. Don't try to hold the lower wing up with the muscles of the abdomen . . . it's unfair to yourself and an unjust criticism of your pilot."³⁸

Yellow Cab's plans to connect with other air routes at Des Moines and Kansas City may have looked good on paper, but they did not work out in fact. In the autumn of 1929 Yellow Cab ceased its air operation although it did continue aviation activities around Des Moines for a time. The problem, again, was that with no mail contract and only passenger revenue coming in an airline just could not turn a profit.

EARLY AIR ROUTE expansion in Minnesota included several attempts to expand to the north—the most obvious possibilities for passenger business being routes to Duluth and to Winnipeg. Indeed, Northwest Airways operated a trial route to Winnipeg for three months in

³⁶ *Aviation* 25 (July 2, 1928): 46.

³⁷ *Journal*, May 7, 1929, p. 10; Perl interview, Mar. 6, 1985. Goebel's passengers included a reporter from the Des Moines newspaper, a Yellow Cab official, the regular pilot, and a former University of Minnesota student, Dorothy Kellogg, whose presence on the flight was unexplained but who declared flying to be "great fun."

³⁸ Here and below, see Yellow Cab Airways brochure and timetable, files of R. E. G. Davies, curator of Air Transport, NASM, copy in possession of the author.

A YELLOW CAB AIRWAYS
Fairchild 71, in 1929



1928 and began permanent daily service there when it won an airmail contract in February, 1931.³⁹

In August of 1929, however, a new airline tried to succeed on the Winnipeg route that Northwest had dropped a year earlier. Several Minneapolis and Winnipeg investors formed Canadian-American Airlines, Incorporated. Using six-passenger Travel Air monoplanes, the new line provided for daily five-hour flights between St. Paul and Winnipeg with stops at Minneapolis, St. Cloud, Alexandria, Fergus Falls, Fargo, and Grand Forks. The one-way fare to St. Cloud was \$10.00 and \$40.00 all the way to Winnipeg with prorated fares for the intermediate stops. Canadian-American would have been just another local airline attempt except that in October something happened that was indicative of the mania for mergers that was then sweeping the airline industry. The controlling interest in Canadian-American was acquired by the Schlee-Brock Aircraft Corporation of Detroit, whose president was William S. Brock, pilot of the 1926 inaugural mail plane.⁴⁰

The Schlee-Brock firm merged its Duluth-to-Port Arthur Arrowhead Airways under the Canadian-American name, intending to bid for a proposed mail

route between Minneapolis and Winnipeg. Canadian-American's grandiose plans included the possibility of flying sportsmen to the Canadian wilderness and ultimately linking Winnipeg to Rio de Janeiro. But like other airlines before it, Canadian-American could not pay its bills on passenger revenue alone, and the onset of the depression in late 1929 was probably the final blow. The company ceased operation in January, 1930.

THERE WAS ONE other airline company with strong Minnesota roots that is a splendid example of the merger mania in the industry at that time. It is of interest, too, because once the merger dust had settled, this company became a major component of American Airlines which remains today one of the nation's largest carriers. In late July, 1928, Air Transport, Inc., Northrop Airplane Company, and Mid-Plane Transit Company, three small Minneapolis firms created just six months earlier under the aegis of the Civic and Commerce Association's aviation committee, merged under a holding company called Northern Aeronautics with a new company, Northern Air Lines, actually to conduct passenger operations.⁴¹

When the merger was announced, several businessmen, including Rufus R. Rand and Clyde S. Yarnell, took part in the negotiations but, most significantly, Louis H. and Harry C. Piper of the Lane, Piper and Jaffray brokerage firms were also involved. Louis Piper had far more in mind than the merger of three small air service companies. In mid-October, 1928, he was officially named president of Universal Aviation Corporation, itself a huge holding company. Among the Minne-

³⁹ Davies, *Airlines of the U.S.*, 98.

⁴⁰ Here and below, see Canadian-American Airlines, Inc., brochure and timetable, Aug. 10, 1929, Davies files, NASM, copy in possession of the author; *Aviation* 26 (Oct. 26, 1929): 356; *Aero Digest* (New York) 15 (Nov., 1929): 214; *Commercial West* (St. Paul), Nov. 2, 1929, p. 14.

⁴¹ *Journal*, July 29, 1928, p. 1. It is difficult to trace the roots of Universal Airlines, but see *Aero Digest* 12 (Feb., 1928): 268; *Aviation* 25 (July 2, 1928): 44. General sources include Davies, *Airlines of the U.S.* and Henry Ladd Smith, *Airways: The History of Commercial Aviation in the United States* (New York: Alfred A. Knopf, 1942).

A TRAVEL-AIR six-seater
of Canadian-American Airlines



sota names on its board of directors were Richard L. Griggs, a Duluth banker, A. H. Rand, president of Minneapolis Gas Company, his son Rufus Rand, Harry Piper, G. Nelson Dayton, and A. F. Pillsbury.⁴²

During the months from August, 1928, to March, 1929, there was a nationwide frenzy of activity as financiers bought, sold, and reorganized dozens of aviation companies, large and small, and the aviation men who actually ran the companies started, altered, and dropped passenger services, which sometimes changed weekly. It was a period as confusing as it was dynamic. Some notion of the complexity of tracing the financial dealings was noted in a 1935 report that described the



"THE SKYWAYS Our Highways," proclaimed this logo on Universal (later American) Airlines planes.

Universal transactions as "a puzzle . . . almost impossible to solve" and concluded with the question "Who got what and who got paid?"⁴³

By November, 1928, Universal owned nine companies and was still growing. Among its operations, the northern division was nothing if not innovative: it operated float planes from Lake Calhoun to Duluth harbor; in late November radio equipment on the Minneapolis-to-Chicago run provided hourly weather reports to the flight crews; and in February, 1929, some surprisingly modern passenger comforts such as galleys to serve hot meals and, between Chicago and Minneapolis, the first use of in-flight motion pictures were tried out.⁴⁴

Despite these innovations, Universal had the same problem that other early airlines had in this area: lack of the vital Minneapolis-to-Chicago mail contract. In April, 1929, passenger service was dropped and aircraft and equipment were shifted to other divisions. Univer-

sal would maintain its presence in the Twin Cities only through the operation of flying schools.

The holding company itself lasted only a little longer. In March, 1929, a group of the nation's wealthiest men established the Aviation Corporation (AVCO) in Delaware with working capital of \$35 million, and began to buy up everything in sight. By late May, 51 percent of Universal shares belonged to AVCO. Universal continued for a time as an operating subsidiary of AVCO, but AVCO itself was a holding company. In January, 1930, in order to manage its diverse air routes better, AVCO created its own new operating arm—American Airways—and Universal disappeared from the scene shortly thereafter.⁴⁵

BY 1930 the foundations of commercial air transportation in Minnesota had been laid. During the decade before World War II, Northwest Airways would not just keep but strengthen its dominant position. The company would have its problems, to be sure. There were fatal crashes and a scandal that would send Louis Brittin to jail briefly and force his resignation. Northwest, however, remained efficient, modern, reliable, as safe as most for the time, and above all profitable. Passenger revenue steadily grew and the company kept its firm hold on the mail contracts that were so vital to the profits of the early airlines.

The decade of the 1920s was the era when air commerce was truly forged in Minnesota. The airmail pilots who lived and died and the airlines that succeeded and failed all contributed to the aviation heritage of the state.

⁴² *Journal*, July 29, 1928, p. 1; *Aviation* 25 (Oct. 20, 1928): 1265; *Financial Chronicle* (New York) 127 (Nov. 3, 1928): 2554.

⁴³ American Airlines history, 8, 9, an in-house manuscript dated Aug. 29, 1935, original in the American Airlines file of R. E. C. Davies, NASM, copy in possession of the author.

⁴⁴ Here and below, see *Journal*, July 25, Nov. 1, 1928, and July 29, 1929, all p. 1; Universal Air Lines System timetable, Nov. 15, 1928, Davies files, NASM, copy in author's possession; *Aviation* 25 (Aug. 25, Nov. 24, 1928): 605, 1629, and 26 (Feb. 9, 1929): 414; Bilstein, *Flight Patterns*, 1.

⁴⁵ *Aero Digest*, May, 1929, p. 192; *Financial Chronicle* 128 (Mar. 9, 16, 23, 1929): 1576, 1732, 1927, and 129 (Aug. 17, 1929): 1126.

THE CARTOON on p. 86 is from the *St. Paul Pioneer Press*, June 7, 1926, p. 1; the photograph on p. 88 is from the collection of James Borden, Burnsville; the one on p. 92 is from the archives of the Dayton Company, Minneapolis; all others are from the MHA audio-visual library.



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