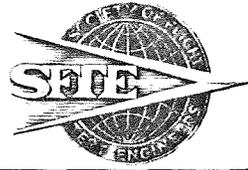


Flight Test NEWS



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Fairchild Super 71 Salvaged After 28 Years at Red Lake

RED LAKE, ONTARIO, CANADA — After 28 years, the remains of a Fairchild Super 71 cabin float plane have been salvaged from the shores of Red Lake in northwestern Ontario.

According to news reports from the area, a ground crew of Ontario Central Airlines Ltd. recovered all major components of the aircraft — fuselage, wings, empennage and floats — with the idea of restoring the aircraft.

The Fairchild Super 71, introduced in 1934, was an all metal cabin seaplane well suited to the needs of the bush flyers who were then opening northern Canada to the world. An unusual feature of the Super 71 design was the placement of the pilot's cockpit atop the fuselage above the rear of the passenger cabin and well aft of the high wing.

An account of the salvage operation in a recent issue of the Cana-

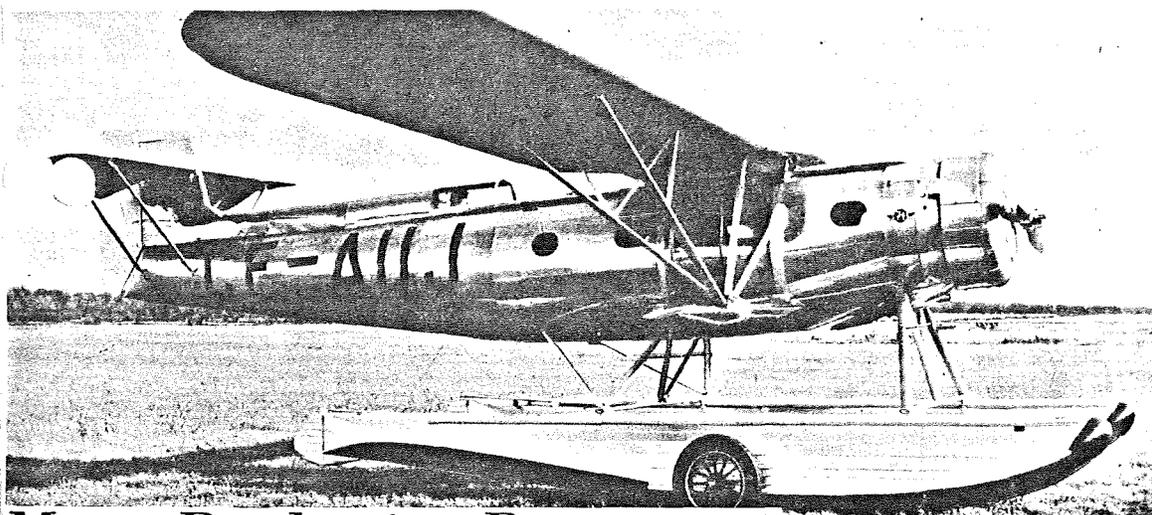
dian Aircraft Operators newspaper said the location of the wreckage of the aircraft was well known, having been re-discovered and re-photographed at regular intervals.

The aircraft, registration number CF-AUJ, was put into service during the winter of 1934 by Canadian Airways Ltd. One item that brought it considerable attention was transporting two live oxen into a northern camp.

The newspaper said the end

came for CF-AUJ in November 1941 when it was flying out of Red Lake with a load of gold bricks and the unknown pilot was attempting to rock from one float to another to get it off the water. The floats separated under the pounding and the fuselage disappeared into the lake between them. Owing to its precious cargo, the aircraft was recovered and brought up onto the shore. There it has remained ever since.

In addition to the commercial Super 71 used by Canadian bush fliers, several modified versions of the aircraft with the cockpit moved forward of the wing were later produced for the RCAF.



SUPER 71. CF-AUJ on delivery in 1934. Designed for bush pilot operations in Canada, its remains reportedly have been recovered from Ontario lake shore where it has been since 1941.

Metro Production Prototype Starts Certification Tests

SAN ANTONIO, TEX. — The Metro aircraft, designed to bring the efficiency and luxury of the large transports to the burgeoning market of air commuters, last month began flight tests as part of its rigorous certification requirements.

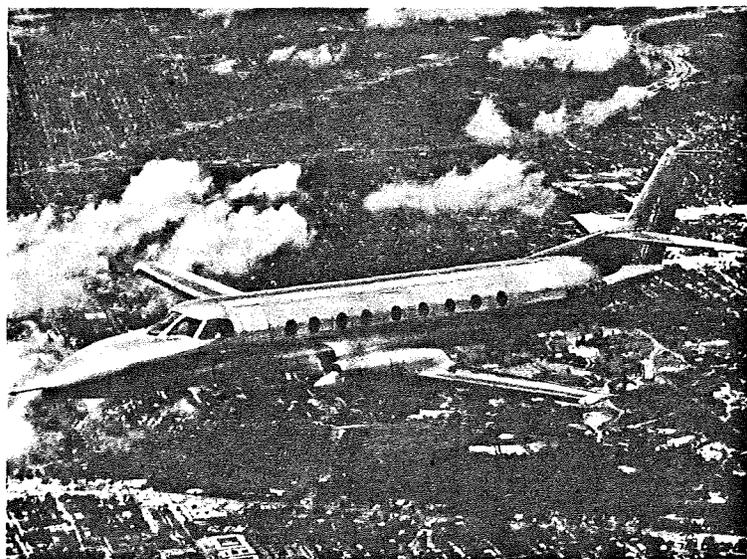
Produced by Swearingen Aircraft here and marketed to the air lines by Fairchild Hiller, the 20-passenger turbo-prop took to the air smoothly and easily despite rain showers. The first flight of the prototype of the Metro model lasted 16 minutes and was described as "beautiful" by the pilot and co-pilot.

Swearingen has been flight-testing a preliminary prototype since March. Company officials said that both production and certification programs are on schedule. The first

delivery is slated early next year to Rocky Mountain Airways — one of four ordered by the carrier.

Les Anderson, Swearingen Vice President - Marketing, said his company is "extremely happy with the acceptance the Metro has received in the commuter marketplace." He the outstanding performance of the said that "we feel that it is due to aircraft, combined with its unique quick-change capability from an all-passenger configuration to a passenger-cargo mix or an all-cargo arrangement."

To insure the production and delivery of Metros on schedule, Swearingen has been constructing a new 115,000-square-foot assembly plant adjacent to the company's present 20-acre facility.



FIRST FLIGHT. The Metro commuter airliner in flight as it started certification tests for airline service.

Full 747 Passenger Load Cleared Quickly In Evacuation

Emergency evacuation tests of the Boeing 747 passenger cabin have been completed, with 499 persons leaving the test airplane in a darkened hangar in 90 seconds, using only four of the superjet's 10 emergency exits.

Witnesses said the tests were convincing proof of the airliner's superior design for passenger safety.

Carried out in compliance with federal aviation regulations, the tests were conducted in the Flight Center hangar at Boeing Field last weekend.

Test subjects, volunteers from clubs and service organizations, comprised a cross section of the population, from oldsters to youngsters. Each was identified for engineering photographic records by a yellow number on a green vest.

Results of the tests were recorded by infra-red photography.

The Federal Aviation Administration requires that the tests be carried out in darkness using only the airplane's emergency lighting, battery-powered units available even when all the airliner's normal electric systems are inoperative.

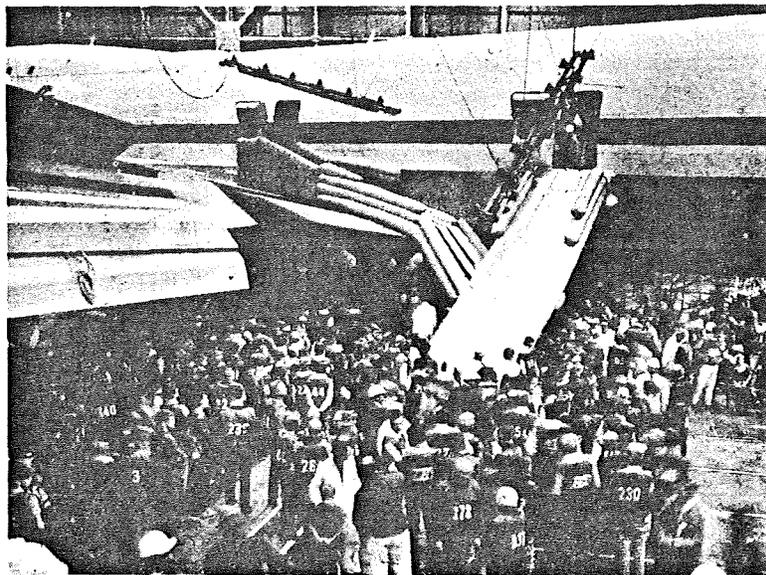
The 747 is equipped with a total of 10 double-width doors for emergency evacuation, but only five can be used in the tests, which simulate unusually stringent conditions. In both 747 evacuation tests, one of the five slides was inoperable.

Different people were used for each test.

First 747s to go into service will carry 370 passengers, and the maximum service capacity

of a 747 contemplated to date by any airline is 450 passengers. Thus the results of the tests prove conclusively that the airplane more than meets evacuation requirements for FAA certification.

The test also aimed at determining the maximum number of passengers which could evacuate the 747 using five exits, as very-high-density seating has been considered for some future 747 airline applications.



"Passengers" used inflatable slides for evacuation.

Twinjets Serve Arctic Communities

Canada's Nordair, Limited, has begun jet service to remote Arctic communities, reporting it has met with none of the problems expected from that type of service.

Montreal carrier is using Boeing 737s specially equipped and certified for operation on gravel and unimproved runways.

Nordair now serves airports at Fort Chimo, Great Whale River, Hall Beach and Resolute Bay—the latter 600 miles north of the Arctic Circle.

Roger W. Morawski, Nordair general manager—maintenance, engineering and supply, said the service started without any of the anticipated problems. "We expected some difficulties, the usual 'first flight bugs,'" he said. "But this gravel runway service has pleased everyone by being trouble-free."

The two jet engines on the 737 have been routinely inspected after each gravel field operation, and have shown no damage. The major modifications to the aircraft—a gravel deflector on the nose wheel and a vortex dissipator mounted below each engine—have proved effective.

Morawski said it has been an "unusually light" snow year in Canada's Far North. "At Fort Chimo, for instance, we are operating off a loose-gravel runway that is about 40 per cent bare. We've had, to date, no evidence of engine ingestion nor any structural aircraft damage."

The ability of the Nordair 737 to use unpaved runways has improved operational payloads. Flight plans which called for alternate landing

sites 500 to 600 miles away have been changed to include unpaved fields at only half that distance. The required fuel load is hence reduced, increasing payload.

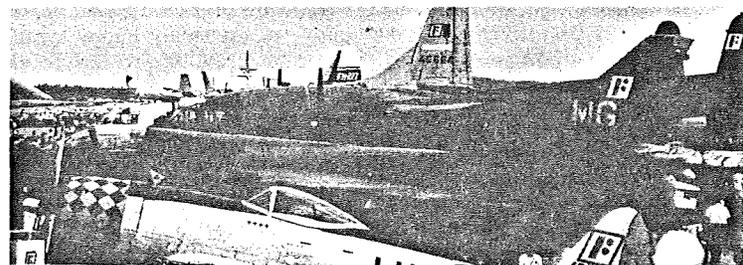
Nordair has been especially



A Boeing twinjet recently made 25 landing/takeoff sequences on the secondary gravel runway at Lake Havasu City, Ariz., during final Federal Aviation Administration certification tests.

pleased by passenger reaction to modern jet service in remote communities. "Housewives in Fort Chimo no longer feel out of touch with the world," Morawski reported. "Just the knowledge that they can leave the far reaches of the North and be in Montreal in two hours—or in Miami in six hours—gives them peace of mind never before possible."

Nordair is offering 737 service three times a week to Frobisher Bay, one flight weekly through Fort Chimo and one flight per week continuing to Resolute Bay. A weekly flight also is operated to Great Whale River.



THESE 7 AIRCRAFT FROM FAIRCHILD HILLER
40,000 AIRCRAFT BUILT-25,000 FIGHTERS

Evacuation Tests

Thirteen stewardesses, the normal cabin crew complement of the 747, were in the airplane to supervise passenger movement in the tests. The cabin attendants, representing six airlines, were trained in the emergency procedures for the superjet, as was the flight crew of three.

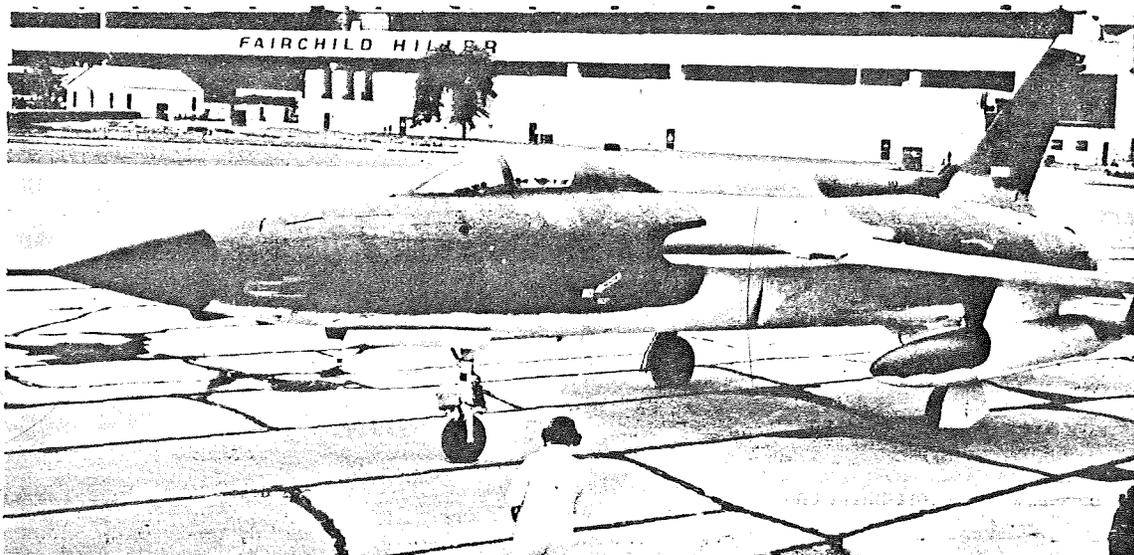
Of the "passengers" in the airplane, 412 were seated in the main passenger deck seats and 8 in the upper deck lounge. The remainder were on platforms outside the emergency exits not in use for the tests. As the test proceeded, those on the platforms entered the cabin and joined the orderly and swift movement to the exits.

Cabin attendants and flight crew reported that the flow was smooth and the exit rapid through the doors and down the slides two abreast. Movement along the length of the cabin was made without difficulty using the two aisles.

... of the test "passengers" have never flown in an airliner and, few, if any, had seen the interior of the 747 before. They were briefed by cabin attendants after being seated, just as airline passengers are briefed before a flight. Emergency instruction cards such as those in airline seatbacks were also provided. Cabin windows were blacked out and the "passengers" did not know which exits would not be used.

Outside, in the illumination of emergency lights, FAA officials, airline representatives and Boeing test conductors and observers watched the slides inflate automatically as soon as the doors were opened. Then "passengers" streamed down the slides to the floor of the hangar where, in compliance with FAA requirements, they made their way clear of the end of the slide without assistance from Boeing personnel.

The 747's main passenger deck is 16 feet above the ground, and Boeing physicians and registered nurses were on hand in case of need.



PROTOTYPE. Testing of an F-105 Thunderchief equipped with the new T-Stick II advanced automatic bomb delivery system is underway at the Air Force Armament Development and Test Center at Eglin AFB, Fla. A "saddleback" atop the fuselage from the cockpit to the vertical fin houses the avionics. The T-Stick II system will enable the versatile F-105 to locate and strike targets accurately under all weather conditions.

LONG ISLAND CHAPTER HOSTS DINNER MEETING

A steak and lobster dinner meeting was held 19 November at the Villa Pace, Smithtown, New York. This meeting was especially significant in that it was the first following acceptance of the Long Island Chapter into the National Society of Flight Test Engineers. Celebration of this event was marked by a formal sign-in of the Charter Members of the Long Island Chapter and designation of Mr. W. Dodson as Founder of the Chapter. Mr. Dodson initiated formation of the chapter back in June of 1969 by establishing the momentum and interest necessary for a successful chapter.

Mr. Thomas Kastner was the featured guest speaker and discussed the concept, evolution, and use of the



Test team. At ease, for the moment, are B/N John McDonnell (L) and Test Pilot Bill Rasmussen while preparing for test flight in EA-6B.

Navy Preliminary Evaluation (NPE) in the development of Naval aircraft. Mr. Kastner is eminently qualified in this field having participated as a test pilot in numerous NPE's while serving as a Commander in the U.S. Navy at the Naval Air Test Center. The duties and responsibilities of the NPE Team were described from the team's viewpoint and illustrated the detailed pre-planning needed to provide a comprehensive aircraft evaluation in just two weeks. Mr. Kastner now works for Grumman and heads the company's efforts in managing the use of the Automated Telemetry Station, a new multi-million dollar flight test facility, located at Calverton, New York.

SFTE Wichita Chapter December 1969, Meeting News

The Wichita Chapter met on December 3, at the Public Library with a total attendance of 30 engineers, 3 of which are SFTE members. The speaker for the evening was Hank G. Beard, experimental test manager at Lear Jet. His topic was First Flights of Experimental Aircraft which have included among others, the F84H, the F105B, and the Lear Jet Model 23. Hank presented some fascinating anecdotes and rather unusual aeronautical experiences which he encountered as a test pilot at Edwards Flight Test Center.

Next month, Cornell Slivinsky, Program Manager for the new Gates Twinjet Helicopter (photo enclosed) will present a lecture on the preliminary design and performance engineering currently underway at Lear Jet.

CURRENT TOPICS OF INTEREST

1. The Cessna 500 Fanjet is currently involved in a Part 25 Certification Program having flown its first flight on the number 1 airplane September 15, 1969. The number 2 plane is scheduled to fly in January.
2. Lear Jet plans to initiate their certification programs for the new economy version Model 24C and the transcontinental Model 25C in the near future.

LI... Fairchild Hiller aircraft was a major attraction at the National Air Exposition. Visible here are the P-47 Thunderbolt, F-105 Thunderchief, AC-119K Gunship, C-123K Provider and FH-227 Friendship. Present but hidden among the others, the FH-1100 helicopter and Fairchild Porter.

Famed Fairchild FC-2, Rebuilt by Pilot Given Wisconsin Air Education Museum

An aircraft of this type, the celebrated 1927 Fairchild FC-2, a cabin land monoplane (CLM), was recently donated by Capt. Herb Harkcom, veteran American Airlines test pilot, to the Experimental Association Air Education Museum in Hales Corner, Wis. Capt. Harkcom's vintage aircraft is one of only two known to exist of the 150 produced in either land or seaplane configuration. The other is at the Smithsonian Institution.

Capt. Harkcom found the aircraft in a Missouri barn where chickens were nesting in it. He and his American Airlines friends spent more than 2,000 hours rebuilding it. He flew it from Oklahoma to Wisconsin for presentation to the museum.

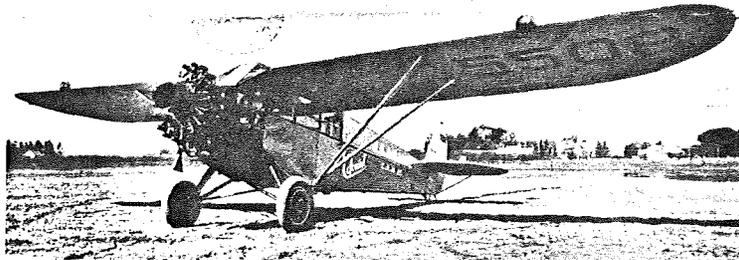
One of the float-equipped FC-2s, used by West Indian Aerial Express, flew Pan American's first

international flight, from Key West, Fla., to Havana, Cuba, on Oct. 19, 1927.

The FC-2, manufactured by Fairchild Airplane Manufacturing Co. at Farmingdale, L.I., was powered by a 220-horsepower Wright Whirlwind J5C engine and had a maximum speed of 119 mph and a ceiling of 14,750 ft. The aircraft

carried five passengers including the crew.

Later versions of the aircraft set world records. The FC-2W set a mark by going around the world in 23 days. The FC-2W2, equipped with skis, became the first aircraft to fly on the Antarctic continent with the 1928 and 1929 Byrd Expeditions.



MUSEUM PIECE. Fairchild FC-2 Cabin Land Monoplane was manufactured in 1927.

Test Program Planned For Advanced 737

Certification testing of the Advanced 737 will be conducted in three segments, with installation of equipment on the twinjet test model scheduled to begin in early March, it was announced today.

A company-owned 737 will be used for the 14-month program, which will be conducted in three phases to certify the stopping and high lift packages and a

higher-thrust engine.

The company announced last fall that it would offer, beginning in May, 1971, a 737 which will show improvements over current models by flying farther, carrying more payload and operating from much shorter runways.

Actual hardware testing of the stopping package, which includes a new antiskid system,

automatic brakes and revision to the shock absorbing mechanism in the main landing gear, will commence in May. It will be followed later this year by certification testing of the improved high lift system, including reworked leading edge slats, extended Krueger flaps, and refairing of the nacelle strut.

The 15,500-pound-thrust engine, which will increase the

thrust by 1,000 pounds over those now used on 737s, will be tested in the spring of 1971, the company said. The new engine will be optional equipment and will be available several months after the other improvements are incorporated on all production models. Retrofit kits will also be offered for the stopping and high-lift changes.

In making the announcement of the testing schedule, J. E. Steiner, vice president—engineering and marketing for the Commercial Airplane Group, predicted "substantial sales of Advanced 737s—starting before mid-1970."

"We have issued a large number of proposals for this airplane," Steiner said. "The lead time between a sales agreement and delivery is such that customers are not required to make decisions until later this year."

Steiner, who recently returned from a tour of Africa, noted a strong market for the capabilities of the advanced twinjet transport. "The high altitudes and high temperatures of many African areas are similar to numerous Middle and Far East locales, and require the particular short-field and high-lift advantages that the Advanced 737 will offer," he said.

Manpower and facilities required to certify and build the Advanced 737 have been considered during development planning and will not affect current employment trends.

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