

Northrop's 172-ft. flying wing, too large to transport to another field, must, sink or swim, be taken-off from the company's air strip.

Northrop's Flying Wing Ready for Flight Tests

A giant flying wing, with an overload gross weight of more than 104 tons, has been completed at Northrop Aircraft, Inc., Hawthorne, Cal.

It has been in construction since early 1943, and was originally designed as a bombardment-type airplane of exceptionally long range and heavy load capacity. However, its design is such that it may now be adapted as a cargo plane.

The U. S. Army, which has wrapped this huge Northrop Flying Wing in secrecy, has now permitted the following disclosures.

The Northrop Flying Wing is 172 ft. in span, with an area of 4,000 square ft., and is capable of operating under overloading conditions at a gross weight of 209,000 pounds, more than 104 tons.

It is powered with four Pratt and Whitney Wasp Major engines, turning four eight-bladed Hamilton Standard co-axial pusher propellers, and designed to deliver a total of 12,000 horsepower under military power.

The crew nacelle is pressurized.

This aircraft is the first of 15 such planes, identical in over-all dimensions, which are to be produced and flown by Northrop under Army contracts. Cost for the first aircraft is estimated at about \$13,000,000.

Control is achieved by means of "elevons," a Northrop development combining the functions of both elevators and ailerons. Normal crew for the XB-35, as the new Northrop Flying Wing is designated, is nine men: pilot, co-pilot, bombardier, naviga-

tor, engineer, radio operator and three gunners. Cabin space is available for six more men to alternate with crew members on long missions. Folding bunks accommodate the off-duty men. These 15 men are housed entirely within the wing itself.

The wing section is 37½ ft. long at the centre, tapering to slightly more than nine feet at its tips. It sweeps back from centre to tips, making the over-all length of the ship slightly more than 53 ft. It stands over 20 ft. high when at rest on its tricycle landing gear, which is equipped with five-foot six-inch dual wheels on the main gear and a four-foot eight-inch wheel on the nose gear.

When the sky giant is rolled out on the Northrop flight strip it is expected to weigh in at 89,000 pounds. Its design useful load is 73,000 pounds, and could reach as much as 120,000 pounds.

The XB-35 Flying Wing must be first flown from Northrop Field, since there is no way to disassemble it into sizes which could be transported by any known means to Muroc, the AAF Base, for tests.

Avro to Make Jet Engines

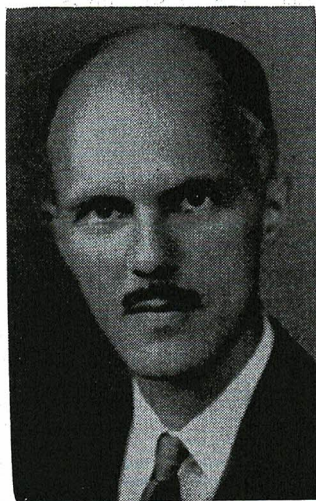
Reconstruction Minister Howe has announced that the design and development work on jet engines conducted by Turbo Research will in future be carried on by A. V. Roe (Canada) Ltd. at Malton. The company is presently occupied in building Tudor transports

and will undertake building of a twin engine trainer for the RCAF.

At the moment, A. V. Roe is taking over the machine tools and most of the equipment and staff of the Crown company, and preparing to continue the jet engine work in the Malton plant.

W. G. Carter, chief designer of the Gloster Aircraft Co. Ltd., and designer of the famous Gloster Meteor aircraft, has recently arrived at the Malton plant of A. V. Roe (Canada) Ltd., to confer with other British engineers who are working in conjunction with the Canadian staff on the company's current projects such as the 35-ton passenger transport, the Tudor II; the twin-engined RCAF trainer and gas turbine power plants.

During his stay in Canada, Mr. Carter will consult with the three other British aeronautical engineers already at Malton. This group includes



BEV. SHENSTONE

E. H. Atkin, B. Sc., Lond., A.F.R.Ae.S., assistant designer A. V. Roe & Co., Ltd., Manchester, England, makers of the renowned Lancaster, York and Tudor, who is now chief designer for the Canadian firm; J. C. Floyd, A.F.R.Ae.S., A.M.C.T. chief project engineer of the Yeadon, Yorkshire plant of A. V. Roe & Co. Ltd., and S. E. Harper, A.F.R.Ae.S., at one time associated with the British Ministry of Aircraft Production and the British Air Commission, now assistant designer at Malton. R. C. Tiplady has also joined the company, working on technical publications, and Bev Shenstone, formerly an assistant to Mr. Howe, has been appointed to the post of assistant to the vice-president and general manager.

Approximately 700 workers are employed by A. V. Roe, tooling up the plant for the various production jobs ahead.

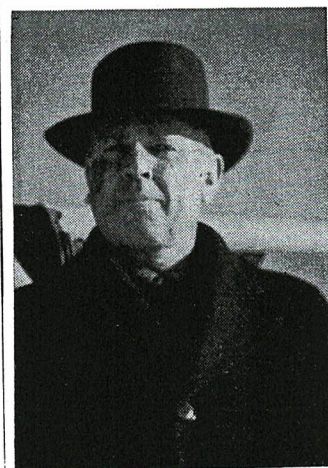
Cub Aircraft Fire Won't Cut Output

A fire that broke out one noon hour and in the matter of a few minutes completely wrapped one of the buildings of Cub Aircraft, Hamilton, in flames, proved to be less serious than it looked.

The dope and fabric shops of the aircraft plant located in the building, were destroyed by a fire thought to have been caused by an electrical spark in a ventilating fan. Fortunately the employees were all out of the building at the time, and no one was burned.

Three aircraft and some components in the shop were burned, but the rest of the plant escaped fire damage. Until the plans have been approved and a new building erected, dope and fabric work is being carried on in another building. The fire will result in cramped quarters for the staff, and some delay in production, but Cub officials are hopeful that peak production will soon be achieved with only minor delays.

In Business Again



F. F. GILLIES

Friday, Nov. 13, 1942, was a black day for Fred Gillies, for on that day, the Oil Controller advised him in his Barker Field office that flying activities must cease. That broke the continuity of Mr. Gillies flying, which had begun 1914 at Armour Heights, gone to a flying school in Kitchener in '25-'30, then to the Kitchener Waterloo Flying Club, the St. Catharine's Flying Club and finally onto Barker Field. Mr. Gillies, with three other instructors is back in business again on his own field at Buttonville, a few miles northeast of Toronto, where he is conducting a flying school, and has a sales agency for Cub aircraft. Four machines are operating from the field, which has three runways up to 2,600 ft. long and is 130 acres in extent.