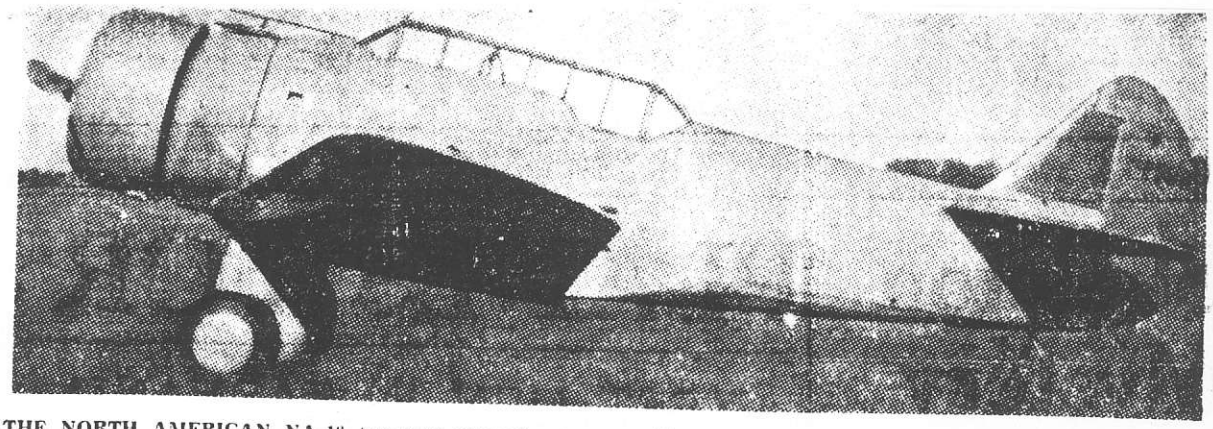

THE NORTH AMERICAN NA-16 two-seat general purposes military monoplane of which type 40 will be constructed at the Fishermen's Bend aircraft factory for the Commonwealth Government. The planes will be modified to suit R.A.A.F. general purpose requirements.

American Planes Most Suitable

MADE FOR CONDITIONS SIMILAR TO OURS

Australian defence authorities have long felt that British military planes — designed to meet the strategic needs of a small country with neighbors as potential enemies—are not suitable for Australian use.

They consider that the defence needs of the United States, with its great distances and long coast-line, correspond more closely with those of Australia, and that consequently American planes are more suitable here.

Most British fighters, designed primarily for the defence of London, have only a short range, and many planes now used in the Royal Australian Air Force cannot fly from Melbourne to Sydney without refuelling.

One of the modifications of the NA16 will certainly be to increase its range beyond the 550 miles at cruising speed of the standard model.

Another factor which influenced the Air Board in choosing an American design was that, although almost all future fighting planes are likely to be all-metal, with stressed-skin wings, British manufacturers are only just adopting this type of construction.

Consequently officials believed that the installation of British machinery would leave Australia facing production problems that have been satisfactorily overcome in the United States.

The North American Aviation Co., Inc., builders of the NA 16, was formed in 1933 by a merger between two companies, one of which was the General Aviation Corporation, the holding company for the aviation interests of the General Motors Corporation.

General Motors-Holdens Ltd. is one of the companies which have subscribed the £600,000 capital of the Commonwealth Aircraft Corporation. The others are Broken Hill Pty., Broken Hill Associated Smelters, and Imperial Chemical Industries of Australia and New Zealand.

The NA 16 plane is a low-wing monoplane, with wings of aluminium alloy stressed-skin construction—that is, the wing covering provides strength instead of being merely a surface—and a fabric-covered metal-framed fuselage.

Cockpits for the two occupants are one behind the other, with sliding, transparent covers.

The maximum speed of the standard model, reached at 5000 feet, is 210 miles an hour. The type to be built here has several improvements on this model, including a retractable undercarriage, so that its speed should be high. The Demons now in use have a lower top speed than 200 m.p.h.

The plane can be used as a trainer, fighter, light bomber, or for observation.

The R.A.A.F. is likely to use the first planes produced as advanced training machines.

550 h.p. Engines

The Wasp engine fitted produced 550 horse-power. It is a nine-cylinder radial, generally similar in appearance to the air-cooled engines fitted to most modern commercial planes. To give maximum efficiency, it is geared down to the propeller shaft, and is supercharged.

Because even more complications enter into the manufacture of engines than of planes, it is possible that the first machines built will be fitted with imported engines.

Defence authorities will be greatly relieved when the first planes are delivered, because their plans for the expansion of the R.A.A.F. have been retarded by difficulty in getting aeroplanes from England.

Even more important, in their view, is the fear that if an emergency arose England would not be able to spare any of its plane output for Australia.

At first many of the materials to be used, and practically all the instruments, will have to be imported. When the commercial production of aluminium actually begins here, however, the proportion of imported material in each machine will drop considerably, and ultimately it is hoped that the industry will be able to carry on with purely Australian sources of supply.

Last month the American War Department ordered 120 observation planes for use by the Army from the North American Aviation Co., paying £857,200 for them.