The Stol-Lifter has a cabin large enough to accept a Minibus or 12 stretchers as alternatives to 20 passengers at 32in, 84cm pitch.

The Air-Metal AM-C 111 Stol-Lifter

During 1969 the West German company Air-Metal initiated the design of a 20-seat Stol transport known as the AM-Z102. The project was to be powered either by two Garrett TPE331-201 turboprops or by four Daimler-Benz 230 h.p. Wankel engines, and details were given in Flight for February 25, 1971. The design has now been extensively modified in the light of the company's market research, and has been re-named the AM-C 111 Stol-Lifter. With a maximum take-off weight of 12,500lb, 5,670kg, the latest design has a high wing and is powered by two geared Astazou 16 turboprops, each rated at 1,088 e.s.h.p. at take-off, driving 10ft 6in, 3-2m-diameter three-bladed Ratier propellers. A pressurised derivative known as the AM-C 112 will be produced later. This version is structurally similar to the AM-C 111 except for the addition of front and rear pressure bulkheads.

Air-Metal plans to manufacture two prototypes and one structural-test airframe, to be followed by a pre-production series of 14 aircraft. The first aircraft is now being assembled and is expected to fly during August. For markets outside Europe, including the United States, alternative engines will be offered as options. These include the 800 e.s.h.p. Astazou 14, the 904 e.s.h.p. Garrett-Airesearch TPE331-3 which powers the Skyvan 3, and the 715 e.s.h.p. PT6A-27 which powers the Twin Otter Series 300. United Aircraft of Canada has also proposed the PT6A-45, a new version of the 905 e.s.h.p. -40. Air-Metal hopes to fly a new 30-seat version of the Stol-Lifter designed to meet FAR Part 298 regulations during the summer of 1974. This aircraft will be powered by either the Astazou 20 or a civil version of the Avco Lycoming T55-L-701 currently in production for the OV-1D Mohawk.

The method of marketing will be similar to the arrangement proposed by Britten-Norman for the Nymph in 1968. Air-Metal will supply kits of parts to licensees for assembly, installation of engines and avionics and sale through the licensees' own marketing organisations, which should have a comprehensive knowledge of the local market. At present 14 licensees located in North and South America, the Philippines, Japan, Australia and Africa have signed agreements with Air-Metal. These agreements include a provision for the supply of parts for a minimum of 20-25 aircraft over a period of four to five years, and through this sales organisation the manufacturer expects to sell more than 500 aircraft. Each licensee will pay about DM1.8 million (£230,000) and receive one of the pre-series aircraft. Air-Metal expects to break even after 80 aircraft have been sold. Sales of 350 aircraft will result in a total turnover of about DM417 million (£55 million), of which DM56 million (£7.2 million) will be handled by Air-Metal.

The AM-C 111 has been designed to keep production jigs and tools to a minimum and a significant proportion of parts will be supplied by subcontractors. When production is established licensees will pay about DM1.14 million (£145,000) for each kit of parts, including engines, which will be dispatched in two standard containers. The initial licence fee will equal the price of one aircraft kit. The company believes that there are several advantages of dispersed production. Import duty will be avoided in many countries and use can be made of cheap local labour. The aircraft produced by each licensee will be a national product of that country and can be given, for prestige reasons, a separate type designation and sold without political restriction. Many of the licensees are already engaged in overhaul and repair and will be able to carry out AM-C 111 maintenance and support without assistance from Air-Metal. Approximately DM1-8 million (£230,000) has been invested in the project so far, and the total cost of the prototypes and certification is expected to be about DM9-2 million (£1.18 million). The German Ministry of Economics has been asked to finance 60 per cent of the development cost.

While Air-Metal's design offices are in Munich, the head office is in Erding and the workshops at the nearby Landshut airfield. Herr Grabowski, managing director and owner of the company's factory at Landshut, does not think that the project will be delayed if government assistance is refused. Part of the licence fee will become payable at the time of the first flight. Reports of differences of opinion within the company following the dismissal of the project engineer at the end of 1971 are incorrect, according to Herr Grabowski, who told Flight that the Air-Metal project team is confident of the project's financial and technical success. The company has had wide experience of aircraft overhaul and repair and has been involved in the construc-

The payload-range performance of the passenger version includes 440lb, 200kg for additional equipment, 170lb, 77kg for each passenger and an allowance for one crew member.