REGIONAL AIRLINER DIRECTORY

No longer in production, the Shorts 360 stil! has a long life

between the Saab 2000 and its smaller brother, the 340, is a leading feature and includes common three-abreast cabin cross-section, cock-pit, tailplane and many sub-systems. Low cabin-noise levels, large seats at 81cm pitch, provision for a large galley and generous volumes of carry-on baggage are all aimed at a high standard of passenger comfort and convenience. Design of the interior has been let to UK specialist AIM Aviation under a $250 million contract, covering the first 200 shipsets. AIM will also be responsi-ble for external paintwork. The 2000 is 27m long with a wingspan of 24.76m. Powered by two 3,096kW (4,150hp) Allison GMA2100 turbo-props, the aircraft will achieve 20,000ft (6,100m) in lOmin. Certification of the engine — a Dowty six-blade propeller combination — is expected in mid 1993. Saab has raised maximum take-off weight to 22,000kg, from the earlier projected 21,320kg. Landing weight has gone from 20,410kg to 21,500kg and zero fuel weight from 18.600kg to 19,400kg. Recent windtunnel tests suggest that field performance includes a stan-dard-day take-off distance of 1,360m (4,460ft), and landing of 1,250m. Crossair is the launch customer, ordering 25 aircraft and taking options on 25 more. American Airlines' AMR Eagle has placed options on 50 Saab 2000s. Orders stand at 46 and options total 148, from more than a dozen airlines or corporate operators. The first delivery to Crossair is scheduled for September 1993. The second and third prototypes should fly by the end of June 1992, by which time the first production example, (No 4) should be structur-ally complete.

Future 340 — Saab is considering a faster 340B-based turboprop, using some of the technology being developed for the new Model 2000, although it says the changes do not add up to a new model. "We are not offering a 340C yet," says the company. A higher top speed nearer to 300kt (550km/h)is the initial target with a further step toward the 2000's 360kt to come later. To improve aerodynamics, Saab has consid-ered winglets, although a simple wingtip exten-sion is a more likely solution. A further move involves the cleaning up of all external intakes, as well as attention to the windscreen. Saab expects to adopt the smoother lines planned for the 2000, especially around the windscreen "C", pillar which is known to generate noise. The cockpit is likely to have a six-screen electronic flight-instrument system. The cabin interior is also expected to benefit from Saab 2000 technol-ogy with so-called third-generation overhead bins and sculpting of the wall panels to improve the illusion of space. A higher gross weight version is likely to weight in at 13,154kg. The manufac-turer is looking for around l,500kW (2,000shp) from the General Electric CT7 engines, possibly by the adoption of -11 units. The propeller is likely to be a six-bladed "mini-2000" unit turning at around l,000rpm, compared with the 900rpm planned for the later aircraft and representing a reduction of about 16% on the speed of the 340 propellers. Saab is aiming to reduce cabin noise to some 76dBA, compared with the 85dBA of the original 340.

SHORTS (UK)
Under the first co-operative design and manufac-turing agreement between Bombardier's Canadair group and subsidiary Short Brothers, the latter has built tooling for the Canadair Regional Jet and is manufacturing major structural com-ponents for the aircraft, including the centre-

section fuselage and the fore and aft fuselage extension plugs, and the wing flaps, ailerons, spoilerons and inboard spoilers. Manufacture of the Shorts 330 and 360 regional airliners has now stopped. Developed from the Skyvan short take-off and landing utility transport, the Shorts 330 (originally designated SD3-30), first flew in Au-gust 1974, and entered service with Time Air in August 1976. Although largely overtaken in terms of commuter airline purchases by its bigger stablemate, the 360, 95 330s nevertheless were sold to airlines before manufacture ceased in 1984. The 330 is powered by two PT6A-45 engines, flat-rated to 820kW (l,100hp) for take-off and 760k\V for maximum continuous opera-tions. Some 130 Shorts 330s and variants have entered service worldwide. Freight versions of the aircraft are the 330-UTT (Utility Tactical Trans-port), with increased payload and maximum take-off weight.

Shorts 360-300 Some 164 examples of the 330's successor, the 360, were delivered, the last in 1991. The -300 is the final variant of the 360 airliner, which was introduced to commercial operation in December 1982. The 360-300 is powered by two l,062kW (l,400hp) Pratt & Whitney PT6A-67R turboprops and offers a wide range of enhancements, including more power, improved passenger comfort and substantially reduced noise levels, both inside and outside the aircraft. The 360-300 has increased maximum cruising speed at 216kt (400km/h); substantially improved hot-and-high performance; increased maximum take-off weight of 12,292kg; and better en-route climb performance. It also has six-bladed propellers with synchrophasing giving reduced noise levels; improved seating; and aero-dynamic refinements including new cambered lift struts and new engine nacelles with low-drag exhaust stubs. Collins Proline II avionics with electronic horizontal situation indicator are fitted, together with heavy-duty floor panels for freight handling and low-pressure tyres.

SAMMI AGUSTA AEROSPACE (Korea)
SF.600TP Canguro First deliveries of this high-wing, twin-turboprop transport were made to Rome-based operator Sun Line in mid-1988. Derived from the piston-engined SF.600, which first flew in 1978, the SF.600TP is powered by two Allison 250-B17C turboprops and has seating for nine passengers. Italian certification was received in 1987. Tooling was transferred in 1991 to South Korea's Sammi Agusta Aerospace, a joint company formed in 1989. Philippine Aerospace Development may become involved with the project. A 400,000m2

factory is being built.
Following certification in Italy, Agusta built just nine Canguros.

YAKOVLEV (Soviet Union)
Yak-48 The Yak-48 being studied by Yakovlev is likely to be a Garrett re-engined variant of the earlier Yak-40. This three-engined 24-seat com-muter was designed as "DC-3ski replacement" to takeover from the Li-2 and flew as long ago as 1966. The Yak-48 will be a twin-engined aircraft powered by a pair of Garrett TFE731-5s, which are used in the West on several business jets. Yakovlev is talking with Garrett about the mar-ketability of export aircraft.

XVAN (China)
Xi'an Y-7 Although production of the Antonov An-24 in the former Soviet Union ended almost ten years ago, a re-engineered version of the type remains in production in China as the Xi'an Y-7. Initial deliveries were made in 1984, the Y-7 entering service with the Civil Aviation Admini-stration of China the same year. More than 70 have been delivered, with at least 60 in airline service. The Y-7 differs from the original An-24 in having a slightly wider fuselage and a larger wing, as well as using Chinese 2,175kW (2,900hp) Dongan WJ5A-1 engines and equip-ment. Five models of the aircraft are available or planned: the Y-7-100, -100C, -200A, -200B and Y-7H-500. A future aircraft, dubbed "Y-7 growth", is being considered for use as a 60- to 64-seater. This aircraft will be an all-new design, probably with Western engines and avionics. Mooted versions include a straight, high wing with drooped tips and a conventional low-wing design. Target specifications include maximum take-off weight around 21,200kg and a range of 1,300km (700nm). The -100 is an improved and modernised Y-7, developed with the help of Hong Kong Aircraft Engineering. The -100A incorpo-rates "winglets" for improved aerodynamic effi-ciency. Xi'an had sent 40 engineers to work with Boeing in Seattle on a revised wing configuration, and these changes where the result of the collaboration. The -100C offers optional Western avionics. A significant overhaul of the design has produced the -200, which includes Western avionics (Collins electronic flight instruments), a stretched fuselage, improved aerodynamics and more powerful engines. The -200B is flying with 2,125kW Dongan WJ-5E engines in place of the WJ-5A units. The -5E, which reduces fuel burn by 9.4%, was developed with help from General Electric. This model can accommodate 56-60 passengers in a 0.74m-longer fuselage and should be certificated in 1992. The -200A being offered for international sales, will be powered by two
2,050kW Pratt & Whitney Canada PW127s
driving Hamilton Standard propellers. Earlier
PW124s had been considered for this model,
which has a lm fuselage stretch. The Y-7H-500
is a cargo aircraft, powered by WJ-5As. D

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