

HELICOPTERS IN CIVIL OPERATION

WHY ARE SO FEW ENGAGED
ON SCHEDULED SERVICES?

By JOHN SEEKINGS

IT is almost five years since the first scheduled helicopter service for passengers began. In July 1953, New York Airways put their newly acquired Sikorsky S-55s into service between the city's three main airports, Idlewild, La Guardia and Newark. Within two months the first European—and first international—scheduled service was

initiated by Sabena, on a route running from Brussels to Rotterdam via Lille and Antwerp. In November 1954 Los Angeles Airways started passenger services between the International Airport and the heliport at Long Beach, a 12-minute flight as against an hour's drive. The following July saw British European Airways introduce a service linking London Airport to South Bank alongside Waterloo Station; and in November 1956 Chicago Helicopter Airways (then Helicopter Air Services) started a passenger service between Chicago's two airports—Midway and O'Hare—and Meig's Field heliport.

All these five pioneering carriers—N.Y.A., Sabena, L.A.A., B.E.A. and C.H.A.—used similar equipment, seven-seat S-55s. All five, too, had prior experience of helicopter operations, using Bell 47s, Sikorsky S-51s and (in the case of B.E.A.) Bristol 171 Sycamores. To Los Angeles Airways falls the credit for the first scheduled service: they flew regular mail deliveries as far back as October 1947. B.E.A. and C.H.A. ran mail services in 1948, and in 1950 Sabena contracted with the Belgian post office to deliver mail in Bell 47s on a cost-plus basis. B.E.A. also ran an experimental passenger service with Sycamores from June 1954 until May 1955. This service, between London and Southampton, carried only 986 passengers. Their scheduled service between London Airport and Westminster was equally short-lived, terminating in May 1956 after having been patronized by 3,800 travellers.

Another pioneering company, Ostermans Aero, have carried out regular mail delivery between Stockholm and various points in the neighbouring archipelago every winter since 1948. As was the case with B.E.A., this company's passenger operations were of brief duration, a helicopter link between Sweden and Denmark having been flown for a few months during 1955 with S-55s.

Unlike B.E.A. and Ostermans Aero, the other four pioneers have persisted with scheduled passenger operations and are now each carrying traffic at an annual level of about 1½m passenger-miles. (To put this into perspective, a single Dove would carry a like amount of traffic in a typical year's operation.) With the sole exception of Los Angeles Airways, all the airlines currently operating scheduled helicopter services have graduated to larger aircraft in the form of the 12-passenger S-58. But even this has proved too small a vehicle; New York Airways are in the process of replacing their Sikorsky fleet of five S-55s and three S-58s by five Vertol 44Bs. These 15-seat aircraft will double N.Y.A.'s present annual seat-mile capacity from 2.5 to 5.0m. Sabena is also conducting evaluation tests on the Vertol 44.

The factor governing the helicopter's slow development can be simply described: how heavy is the loss that can be afforded? In the U.S., where scheduled services are certainly as intensively and efficiently operated as anywhere, total operating costs are almost \$7 (£2.10s) per capacity ton-mile. This compares with under 30 cents per c.t.m. for America's domestic trunk airlines, and about 50 cents for her local-

service carriers. Rotary-wing aircraft in use today are still 15 to 25 times as expensive to operate as their fixed-wing brethren.

The peculiar advantages of the helicopter allow passenger fares to be set at rates which would ordinarily be prohibitive. A steady fall in the average fare, from 38 to 28 cents per passenger mile, has been accompanied by a rise in seat load-factors from under 20 per cent to about 50 per cent. This is still quite inadequate to cover operating costs. In the U.S., the three scheduled helicopter operators have been kept alive by mail rates averaging \$30 (£10.14s) per ton-mile (the domestic trunk carriers are getting 37 cents (32 pence) per mail ton-mile, while the local-service carriers get \$1.53—about 11s—per t.m.). These generous rates include a large proportion of subsidy. In the present financial year, C.A.B. subsidy for helicopter services stands at \$4.5m (£1.6m). For the year 1958-1959 this is expected to fall to \$4.1m (£1.5m). Sabena publishes no financial results for its helicopter services, but no trouble is taken to conceal the fact that they are run at a loss. B.E.A. also lost heavily on its helicopter operations, costs over the last four years having exceeded revenue by over £½m (of which about three-quarters was borne by the Government in the form of subsidy).

Four big helicopters—three Western, one Russian—show promise of subsidy-free operations: the Fairey Rotodyne, Westland Westminster, a Vertol derivative and the Mi-6. If the expectations of their makers are fulfilled, these aircraft will be the first to bring scheduled helicopter operations into the hard-headed world of unsupported private enterprise.

The unsuitability of the helicopter for scheduled services has not deterred private companies from exploiting the non-scheduled market. Against the total fleet of 37 helicopters in scheduled civil operation (seven Bell 47s and 30 Sikorskys) about 350 are performing non-scheduled services. Precise figures are difficult to establish, but it seems that at least 200 are being operated in North America, 40 in Latin America, 70 in Europe, and 40 elsewhere. Unlike the scheduled operators, the charter companies prefer smaller aircraft. The Bell 47 is the most popular aircraft in this field, some 150 now being in use, while Hiller have sold about 70 civil helicopters. Sikorsky sales are less than 50.

Although the typical non-scheduled helicopter operator is a small company employing a fleet of less than five aircraft, there are—scattered around the world—a few really large-scale undertakings. The North American scene is dominated by four such companies, Rick and Bahama in the U.S., Okanagan and Spartan in Canada. Rick Helicopters, together with their associates Alaska Helicopters and U.S. Helicopters, control a fleet of 30 aircraft. Bahama Helicopters (nominally based at Nassau) are linked with Agricultural Helicopters, Armstrong-Flint Helicopters and World Wide Helicopters; their total fleet also numbers about 30. Okanagan is based in British Columbia and, together with its subsidiaries, United and Canadian, can claim to be the world's largest operator of helicopters, the total fleet consisting of 36 Bell 47s, 20 S-55s and one S-58. Spartan's 14 Bell 47s concentrate on photographic survey.

Throughout the rest of the world there appear to be only seven companies with over five helicopters each. Three are to be found in Latin America: Trabajos Aereos y Representaciones (13 Bell 47s) in Argentina; Aerotechnica (ten Bell 47s) in Venezuela and Helicol (six Bell 47s) in Colombia. The remaining three are in Europe, two being in France (Etablissement Fenwick and Cie. Gyrafrique, with fleets of eleven and seven Bell 47s respectively) and one in the U.K. (Fison-Airwork, with three S-55s and six Hiller 360s).

New York Airways are to re-equip with Vertol 44Bs, largest helicopters available for civil use.

