FLIGHT International, I2luly 1930 121

The company helicopter

By ELFAN ap REES Data compiled by IAN PARKER

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HIS year may well go down in
rotary-wing history as the year
when the company helicopter came of age.
New technology and new helicop-ters, developed and tested over the past five years, are now entering ser-vice and setting new standards in terms of economics, speed, safety and comfort. Gone forever is the bone-shaking, ear-deafening conveyance. In its place is the sophisticated aerial limousine, equipped with all the latest flight aids and capable, over stage lengths of 300 miles or so, of not only meeting but actually beating the executive fixed-wing aircraft at their own game.
At first sight it is difficult to pin-
point just where and when the new generation of business helicopters be-gan to assert itself. If one accepts Bell's JetRanger as a member of the preceding generation (and Bell might justifiably argue that point because, after 13 years of production, this ubiquitous helicopter is still selling

quite nicely), then perhaps the Agusta A109 is a logical starting point.
Certainly, when the A109 was originally launched in 1973 it was aimed directly at the growing cor-porate market, being an eight-passenger twin turbine machine de-signed with Italian flair to perform at speed over a comfortable distance. Had Agusta given greater priority in the early years to meeting develop-ment and production needs the A109A might have scooped the mar-ket. But today, although it can still claim a certain edge over others in its class in terms of international single-pilot IRF certification and price, the competition—mainly Ameri-can and French—has significantly closed the gap, and business opera-tors now have a number of conten-ders to consider.
Sizes and prices range from the three - passenger turbocharged En-strom Shark to the 14-passenger twin turbine Sikorsky Spirit. If there

are any common factors among the newer types then they probably fall into two main areas: reducing noise and cutting down vibration. The lat-ter has been largely combated by the tuning of rotor and transmission sys-tems, and their separation from the main body of the helicopter by flexi-ble mounts using new elasticated materials. Major reductions in vibra-tion have cut down fatigue damage, improved TBOs and contributed to both safety and internal noise levels. Indeed, with the introduction of modern lightweight sound proofing as well, it is now possible in several of the new helicopters for the pilot to converse in normal tones with his rear-seat passengers.
External noise has also been re-duced through attention to such noise-producing areas as engine in-takes and transmission, main blade tip speed and particularly the tail rotor, which is a traditional headache. The practical steps taken by the manufacturers, coupled with legisla-+- +- page 124

Above Hughes 500D below MBB BO 105 right Bell Longranger II

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