operating costs. The key to being able to offer such competitiveness with a single-engined aircraft is the reliability of the 520kW (700hp) Pratt & Whitney PT6A-64 turbine.
This is now such that several certifica-tion authorities, led by Canada, are begin-ning to approve single-engine instrument-flight-rules operations for- PT6-powered aircraft. The result is likely to be an increase in sales to business and utility operators — this has already been the case with the larger Caravan.
This, and the lack of private orders, led Socata to its recent decision to extend its TBM 700 marketing to include utility and military markets. The company points to the aircraft's flexibility, performance and its pressurised cabin as being among virtues which the company believes make it suitable for such work. In the liaison/ training role, for example, the TBM 700, says Socata, will have advantages because of its short take-off ability, its 60-300kt speed range and the comfort of its cabin. Other roles being prepared for the TBM 700 include target towing (tests have already been carried out), electronic coun-termeasures training, photography and medical evacuation. The French air force has already bought six aircraft, mainly for training. According to Socata, the air force might buy up to 30 more TBMs over the next few years.
"Their order was very welcome," says de Raffin Dourny, "and should help us to sell the TBM to military customers in other countries." Socata has previously sold Epsilon trainers to the French air force since the days of Morane Saulnier.

DEAD-STICK LANDING

A short flight in the TBM 700 demon-strated the aircraft's exceptional power and its controllability during a dead-stick landing in the event of engine failure. Once the take-off roll and the attendant use of considerable right rudder to bal-ance the PT6's torque is mastered, the TBM 700 becomes a pilot's dream, climb-ing at 2,380ft/min (12m/s) to its 26,000ft (8,000m) operating height, it is easily settled into a 255kt cruise — although in turbulence, with passengers aboard, this would be too fast. At 180kt, however, the ride is more comfortable, as well as less demanding on fuel.
Socata chief pilot Philippe Deleume demonstrated the TBM 700's easy control-lability in stalls, even at high power. Low-speed performance is also excep-tional, the aircraft stalling at just 59kt. The TBM 700 is somewhat stiff in pitch, because of the long nose necessary for the PT6 installation. Minor pitch adjustments are easily carried out by using trim. Several dead-stick landings were made, starting from an altitude of 1,500ft. Torque was set at 7% to represent a

feathered propeller. The descent was car-ried out on a heading at 45° to the runway to reach the end of the downwind point. With gear extended and half flap lowered, an airspeed of HOkt was maintained and a 30° banked turn made to line up with the runway.
Once the threshold was in sight, the flaps were fully lowered. Descent while approaching the centreline at an angle permitted last-minute fine adjustments of pitch. The technique is to keep the speed high and aim at the end of the runway, losing speed in the flare for a touchdown' 100m or so beyond. Excess height can be

lost in a sideslip at a late stage. With its exceptionally large flaps, the TBM 700 can be brought in for the approach at just 80kt to accomplish a 70kt touchdown. The flight showed that, from a typical cruise height of 26,000ft, the TBM 700 has a still-air glide range of about 90km (50nm), which is more than that of the majority of twins, and demonstrates the TBM 700's remarkable low- and high-speed performance — a virtue which Socata will no doubt be repeating to potential military and utility customers.
As part of Aerospatiale's privatisation, Socata would be expected to find a buyer,

Mixing pleasure with business
F

light International assessed the TB 200 Tobago from Socata's Paris base at Toussus Le Noble, with demonstration pilot Bernard Robert taking the right-hand seat.

The TB 200 is an uprated version of the successful TB 10. Powered by a 150kW (200hp) fuel-injection Textron Lycoming IO360 A16B, the TB 200 was launched in 1991 specifically to meet the requirements of flying schools. It was certificated in the USA in November 1992.

The TB 200 has all of the carefully thought-out cockpit features of the other Caribbean singles. The impression gained when climbing in is of entering a luxury car rather than a light aircraft. The 1.28m-wide cabin is uncramped; the pilot steps in under "gull-wing" doors, with equal ease of access, either to the seats, or

the rear passenger bench.
The door is lowered on to catches, the closure' handle, located conveniently below the sill, pulling the structure down a final few millimetres as it moves over-centre to lock. The doors can be left cracked open at the bottom to improve ventilation on the ground (the large area of glass common to all Socata light aircraft can make the cockpit very warm). Outside, a panel on the engine cowling gives easy access to the oil filler. The fuel/water drains are opened by a simple push-up probe on the test vial. The filler caps are well made and lock solidly. Circuit breakers by the pilot's left knee
are tiered for improved visibility. Switches
(similar to set-and-reset circuit breakers)
for the battery, auxiliary electric fuel
pump, main lights etc, are set at the

Caribbean-class Tobago has a healthy sales future

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