

Corporate Aviation

Recycling reaches new heights with 400XT



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Times are tough for the makers of business jets – most of them companies with long histories. One of the newest entrants to the category, however, is helping to make times tougher for the rest of them.

Nextant Aerospace has come up with a business jet in the light category that makes many of its competitors look embarrassingly overpriced.

The US company was set up in 2007 to look into turning old aircraft into new by reconditioning them, and eventually decided on using the Hawker Beechcraft 400A/XP – known as the Beechjet – as the base.

Not only are they plentiful and available on the second-hand market, with more than 600 made between 1990 and 2009, but their airframes are also strong.

Nextant buys Beechjets, available for about \$1m, and then puts them through what it calls a remanufacturing process.

That takes 6,000 man-hours and results in an aircraft that is about 80 per cent brand new, with all life-limited components replaced. The engines are swapped for freshly designed Williams FJ443AP turbopfans, the cockpit avionics for a Rockwell Collins Pro Line 21 system, and the interior of the already sizeable cabin is completely transformed.

Even the airframe is tweaked. A Beechjet weak spot, the horizontal stabiliser, is given new ribs. And the mounts for the engines are Nextant's own design. Wider than the old ones, they provide lift and remove drag, as well as altering the turbopfans' axis relative to the



fuselage by 0.5 of a degree in the vertical plane and 1 degree in the horizontal. That improves cruise performance with only a tiny penalty in single-engine handling when the aircraft is light.

All together, the remanufactured Nextant 400XT is faster than the Beechjet 400XP with a long-range cruise speed of 437 knots against 414 kts, and a high speed cruise of 460 kts (450kts). But operating cost is improved much more radically – by 29 per cent to \$2.13 a mile. And the range grows by 50 per cent to 2,005 nautical miles, with four passengers and sensible fuel reserves.

As Jay Heublein, Nextant vice-president for sales and marketing, says: "We're starting to compete with very-light-jet economics – but in a light jet." The price of the

400XT, which includes a two-year warranty (three on the engines) is \$3.9m, or about \$4.3m with almost all the options. This is strikingly low for an aircraft classified as new – which also makes financing easier. The low price is partly because Nextant does not have to recoup the development costs of a new airframe, but it makes comparisons with new aircraft that have the same range and cabin size interesting.

The Phenom 300 from Brazil's Embraer costs more than \$8m. And the Citation CJ4 from US manufacturer Cessna is in excess of \$9m.

Even among second-hand aircraft, a lower purchase price for an early Citation, for example, has to be balanced against the 400XT's relatively low cost per mile.

The 400XT gained US

certification in September 2011 and Nextant has so far delivered 10 aircraft out of a backlog of nearly 70, including 40 orders over five years from US fractional operator Flight Options. European certification is expected this quarter.

Inside a 400XT at London's Stansted airport, only the ashtrays in the cockpit give away the age of the original aircraft. Nathan Marker, Nextant chief pilot, has accepted the tower's offer of a takeoff from intersection U, which leaves just 5,000ft of rain-soaked runway. With the digitally controlled throttles full forward, the acceleration is startling, and the aircraft vaults into the air long before the hard surface runs out.

The 400XT has the feel of a much larger aircraft. Handling is also solid and assured – which is as pleasing

for those in the back as the crew upfront.

Meanwhile, the engines offer both plenty of power and quick response – making it easier to control the aircraft's tendency to want to go faster.

I have flown the Phenom 300 and the CJ4 and they are as viceless in handling. Both are certified for single-pilot operation and need less runway for takeoff and landing, but at a substantially higher price.

The 400XT is in tune with the times. Not only does it offer the prospect of relatively cheap purchase and operating costs. It is also about as green as private jets can get.

As James Miller, Nextant president, says: "Some people recycle beer cans. We recycle whole aircraft."

