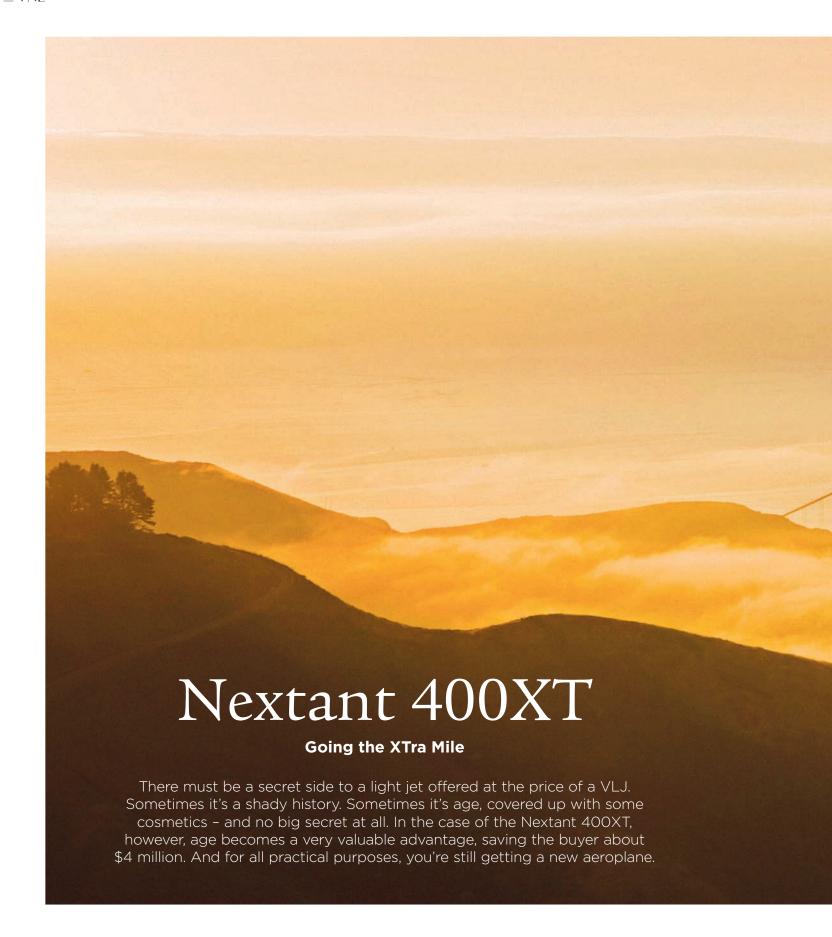
Altitudes

EUROPE









Nextant Aerospace's brand-new production facility in Cleveland, Ohio, recently expanded by 11500 sq. m. to accommodate an output of 48 aircraft per year

They started life as Mitsubishi aircraft, then carried on as Beechjet and Hawker models. And now some - the luckier ones, judging by the result - become the Nextant 400XT, a completely remanufactured light jet, with a longer flight range, better fuel economy, modern avionics, and a whole number of other significant changes. The amount of work Nextant puts into this neat aircraft justifies the claim that it can be considered a new type. Let's take a closer look.

THE IDEA

Kenneth Ricci, the founder of Nextant and major fractional ownership operator Flight Options, comments why the Beechjet/Hawker 400 was chosen as the remanufacturing platform: "The considerations are quite simple, and there are just three of them: 1. It has to be a good aircraft with some sort of deficiency that needs to be addressed. 2. There have to be enough of the aircraft on the market for such an effort to make sense - it has to be a popular model in the first place. 3. There has to be a sufficient resale market. In terms of cabin comfort and flight range the 400XT is aimed squarely at the Citation CJ4 and Phenom 300, but costs much less. There is a very good market for this aircraft." Good indeed. Kenn doesn't mention that his own company, Flight Options, acquired 40 of these aircraft worth \$150 million, but does say that the total backlog will be \$175 million after 25 planes are delivered by the end of 2012. This is very impressive for a light jet in current market conditions, so we really have to see what makes it so special.

THE PROCESS

Taking a Beechjet 400 and turning into the Nextant 400XT is referred to by the company as "remanufacturing", and this is exactly what it is. It is not a refurbishment or overhaul, where the customer brings in his own plane and says what he wants. This is a new model, with its own type certificate, and it comes with a range of options. The essence, however, is predetermined: Modern Williams FJ44-3AP engines, several aerodynamic changes, a Rockwell Collins Pro Line 21 glass cockpit, completely new wiring harness, and a choice of standard interiors. Everything that has age limitations is either changed for new equipment and parts or is overhauled to "zero-time" status. Since the airframe originally has no limit, it is the only major component left unchanged. While this is not a brand-new airplane, for all practical purposes it will be: It even comes with a factory warranty. 6000 manhours and about as many parts are put into the Nextant 400XT, in a brand-new production facility based in Cleveland, Ohio, recently expanded by 11500 sq. m. to accommodate a planned output of 48 aircraft per year - a very formidable figure in these challenging times.

THE PLANE

The Nextant 400XT does not compete with the Beechjet or Hawker - it goes a whole level up. A repositioning of engine nacelles, an aerodynamically-improved cowling and pylon, optional winglets all result in less drag, by themselves increa-

sing the flight range by 4-5%. The big deal, however, are the engines. The compact Williams FJ44 made a revolution when it was offered in the early 90s, and became the single most important factor behind the variety of VLJ projects in the past decade. The fact that it was chosen for the Virgin Atlantic GlobalFlyer, on which adventurer Steve Fossett circumnavigated the world in just 2 days 19 hours and 1 minute without a single fuel stop (smashing the previous record of 9 days and 3 minutes) speaks for itself. It is a small, powerful, reliable FADEC engine that needs only about 2/3 of the fuel consumed by older engines in its category - the Pratt & Whitney JT15D installed on the Beechjet, to be more specific. With the FJ44, the Nextant can do trips of 2000 nm (3700 km) with 4 passengers - an outstanding achievement. The original aircraft would only go about 2800 km, barely enough to reach Moscow from London, and no good for a flight from the UAE to Kazakhstan, for example.

Improved range, climb performance, and cabin noise (aided by new soundproofing) come with the Williams engine. The 400XT is more than just a re-engined plane, however. Its modern avionics suite has options such as synthetic vision, integrated flight information system (IFIS), and wide area augmentation system (WAAS) that will keep pilots well-informed. The completely re-done cabin, including HD video, coloured LED lighting, onboard Wi-Fi, satellite phone, iPad/iPod docks, and all the other niceties you would expect to find on a recently-produced aircraft, will make the flight more enjoyable. Most options come at a price, however, so the total price of the aircraft may go up \$300-400 thousand and more, depending what choices are made.

"We include the acquisition of a pre-owned aircraft and its total remanufacture in the price. Our brand-new facility mainly employs trained technicians as opposed to just mechanics, which means that the complex jobs are handled with greater precision, and the resulting quality is top-notch. 6000 hours go into each aircraft: We take everything out, and then put new systems, equipment, engines etc. in place. We even custom-build the wire harnesses – that's a huge undertaking. It takes us 14 weeks to roll out a Nextant 400XT," says Kenn Ricci.

The cabin has been entirely done over and the resulting quality is top-notch.









THE COMPETITION

Sitting low on the ground, with a sharp long nose that subtly transforms into the fuselage, the latter continuing in a straight line to the T-tail, the Nextant 400XT looks sporty, compact, and well-proportioned. It can actually fit as many as 9 people (1 on the toilet seat)

plus 2 crew, although 4 passengers would be most comfortable in this size of aircraft, and 6 would be just about enough. With its \$4 million price tag, it's roughly the same price as a Phenom 100 and cheaper than a HondaJet, but offers much better performance and cabin – at the level of the Cessna Citation CJ4 (almost \$9 m) and Embraer Phenom 300 (\$8.8 m). We could even compare it to the new Learjet 70, worth \$11.5 m, offering about the same range and a longer cabin of greater volume, but Nextant seem to be content with the Citation and Phenom as primary competitors.

A maximum range of 3700 km with 4 passengers, a 22-minute climb to 13100 m, and a high-speed cruise speed of 850 km/h are all figures one expects of a light jet made in 2012 and onwards, sold at over \$8.5 million... which is exactly where the Nextant 400XT leaves its competition far behind. Sure, there are enough people on the market who won't be satisfied with the "good as new" philosophy – just as there is a bunch who can see the direct benefits straight away. This not only goes for the acquisition price, but also the operating and fixed costs, which should be on par with the competition, taking into account the factory warranty and relatively low depreciation (Nextant officials expect it to be less than that of new aircraft).

The 400XT can cover all of Europe (Moscow-London for example) nonstop. With one fuel stop, it can reach any destination in North and South America or get to China and Russia from Dubai. The flat floor and "squared" cross-section

make the cabin more comfortable than a standard "tube": There is enough shoulder room, and plenty of space below so that your feet are not tangled with another passenger's. A proper bulkhead separates the lavatory from the rest of the cabin. The baggage compartment is not as

spacious as that on the Phenom 300 (and Embraer is very hard to beat in any class), but it's still enough for suitcases and golf clubs, although some have been heard to complain that this plane doesn't like overpacked passengers.

Aftersale support in the USA should be no problem, with seven maintenance and overhaul facilities. Maintenance in the rest of the world is through factory-approved centres, building on the vast experience with Beechjet and Hawker operations. For now this sounds like a weak area, however, and as the global fleet grows we would expect Nextant to address the issue with own service centres around the world.

THE FUTURE

With a full 2-year warranty on the airframe, 3 years provided for engines by Williams, and another 2 on avionics, the Nextant 400XT comes with a number of benefits characteristic of a brand-new aircraft. Even pilot training is included, though re-training from a Beechjet (which is probably what most pilots will be in for) is very simple. With the future of Hawker now very uncertain, the 400XPR, a manufacturer take at improving the Hawker 400, is out of the way, and the battle will be against advanced new aircraft, such as the Cessna Citation CJ4 and Embraer Phenom 300. In regions such as the USA and Europe, where the 3700 km flight range allows the owner to get virtually anywhere, and given the \$4 million benefit on acquisition compared to the abovementioned, the 400XT will definitely get its share of the

"Over 6000 hours go into each aircraft. We take everything out and then put new systems, equipment, engines etc..., in place,"

says Kenn Ricci

market. Another good place may be South America, where Embraer is very successful in selling its light jets.

When speaking of regions where "buying big" is still the trend - such as the Middle East, Russia, China, and India, massive sales are doubtful. There is a way out for Nextant, however. Asked about the vague prospects of the Hawker lineup, the seemingly attractive - and significantly larger - Hawker 900, and the possibility of adding this model to the remanufacturing roster, Kenn Ricci commented:

"We didn't see it [Hawker Beechcraft ceasing the production of Hawker] coming. The Hawker 900 does meet our criteria that I mentioned before – it has some deficiencies that can be improved, it exists in great numbers, and there is a resale market for a new version. However, we already have an announcement coming in January. We've looked at 4 different models and narrowed the choice down to 1. Now we're just waiting for one final supplier agreement, and will tell the world what it is. In about three years from now, we'll have another model coming off our production lines."

January is just around the corner. It's easier to wait for the announcement than to start guessing. Whatever it is, it's sure to be a bigger aircraft with greater range. And when it comes, the formula of "(almost) brand-new aircraft for half the money" will attract a new audience: Those who want to fly big, but not spend big.



The USD 4million, max 9 pax (1 on the toilet seat)
+ 2 crew Nextant 400XT looks sporty,
compact and well-proportioned

