

FLIGHT TEST

One of the most impressive aircraft in the Business Aviation park at Farnborough this week is the Hawker 850XP, the latest derivative of the world's best selling business jet. Alan Peaford gets a unique hands-on chance to see how the aircraft performs

DANCING WITH ANGELS!



Raytheon Aircraft demonstration pilot Mark Mills suddenly made my day with one simple sentence – “Jump in the left hand seat and let's go and have some fun.”

The left hand seat in question was at the sharp end of the latest derivative of the Hawker 800 series described as ‘the most popular midsize jet in the world’ – the Hawker 850XP.

Did Mills say ‘fun’? What I registered was a sudden prop-wash of nerves. Like many others in this industry, I'm happy to dance with the angels as a leisure pilot in a single-piston Cessna or a Piper Cherokee, but this... This was a real airplane.

Mills was remarkably calm for someone entrusting near on \$14 million of hardware to the hands of a pilot with fewer than 100h. “You're going to love this plane. Just tell me if you feel uncomfortable at all and I'll take back control.” He looked at me. “Er, just give me as much notice as you can...”

Taxiing out of the Beechcraft delivery hangar at Pawnee airfield threw up the first difference. A tiller mechanism steers the aircraft up to speeds of 80kt before switching over to more traditional foot-controlled rudder steering. A test of the brakes almost sent chief demonstration pilot Coby Wilson tumbling out of the jump seat. “They work then,” was his droll observation.

The throttles controlling the twin Honeywell TFE 731-5BR engines are more responsive than I had expected and we were soon on our way toward the end of Runway 18.

“When we're cleared, open the throttles,” said Mills. “I'll call 80kt, switch to rudder control with your feet and get your hand on the yoke to control the



factfile	Max cruise speed	466ktas	836km/h
	Certified ceiling	41,000ft	12,497 m
	Max range	2,710 nm	5,019km
	Honeywell TFE 731-5BR engines:	4,660lbs thrust	20.7kN

ailerons. That's decision time. Rotate at 112kt and climb out to 2,000ft at 111kt and then make a right turnout.” His instructions were clear.

Without passengers, the Hawker 850XP was light and acceleration was remarkable. The transition from the tiller was easier than it sounded and soon we were climbing rapidly into the clear blue skies above Kansas.

The turn came quickly. “Keep the nose down, you're climbing,” Mills warned. The aircraft is remarkably responsive.

We held straight and level to exit the zone which was busy with activity at the nearby McConnell airforce base and Cessna's Pawnee field facility. Soon we were away from metropolitan Wichita and Mills gave the instruction to climb to 13,000ft – the Hawker wants to climb and with barely any effort and even less time we reached the target altitude.

The 850XP is the latest in the line which began with the de Havilland 125 in 1961. There is little left of



the heritage design; the move away from the more recent Hawker 800XP and XPI was apparent just by taking a look out of the left window as we tried some steep turns.

The Raytheon custom-designed winglets are the obvious external difference.

Product manager Dennis Hildreth had briefed me before the flight. “The lightweight composite winglets were designed in-house; they give us 3ft more wingspan and are outwardly canted with a supercritical airfoil.”

The changes in performance at high speed cruise at 24,000ft were marked with

an increase of 5kt to 424KTAS at FL 410. The climb has been improved too with an 8% reduction in time to FL 280 while at the same time reducing fuel by 6% and saving 10% of distance.

“We got more speed and faster to altitude,” Hildreth says. “We've improved block times and mission speeds – we have saved fuel.”

With eight passengers, the new 850XP has a range of 2,554nm, an increase of 106nm. “That 4% increase is right across the board,” says Hildreth.

For the US market, this gives the New York to



Los Angeles pairing. In European operations, that would give you London to Cairo.

The Hawker 850XP was certified at the end of February by the FAA and flight evaluation by EASA is now complete. Already five customer aircraft have been delivered.

Mills was keen to demonstrate the other great benefit to the new 850XP and we switched to autopilot to ‘play’ with the Rockwell Collins kit which includes the integrated flight information system (IFIS), with its Collins Pro Line 21 avionics suite with digital CNS radios and the Collins Airshow 21 Cabin Management System.

The information at your fingertips is quite remarkable. Easy-to-read electronic charts showed our approach to the Beech field with the aircraft's present position indicated. We could zoom in to look at the runway, check the weather and whereabouts of other traffic.

“You can even have a 3D representation which could be useful during complicated departures and arrivals,” Hildreth had told me.

Our descent was under

Above: The new midsize Hawker is put through its paces.

Left: New designs: Raytheon custom-designed winglets are the obvious external difference – but there is little left of the old interior styling.

way and with a short turn onto finals, three green lights for gear down and holding a steady 120kt – my brain instantly calculating that as almost twice the speed of a Cessna 152 approach – the runway came rushing up. “Hold it steady, keep coming down, keep your speed up, remember to switch to the tiller at 80kt after you have hit the air brakes. Flare now! Flare.”

Perfect

With the gentlest of bumps we were back on the ground in one piece and with an aircraft that could be used again. A perfect landing. Off the runway and a taxi back to the RAC apron. Twenty-four minutes of sheer delight and just 670lb of fuel lighter.

After shutting down, I got the chance to look at the bit that most people at Farnborough will be awestruck by, the cabin.

The Hawker 850XP has the largest and most luxurious cabin in the midsize class. It features standing headroom throughout and has exceptional baggage capacity. With a useful load of 11,790lb (5,343kg), a cabin of 21ft 4in x 6ft (6.5 x 1.83m) it is no wonder that order books are looking healthy.

The aircraft will be on static display throughout Farnborough and you never know, dreams do come true. Someone might just say: “Jump in the left hand seat and let's have some fun!”