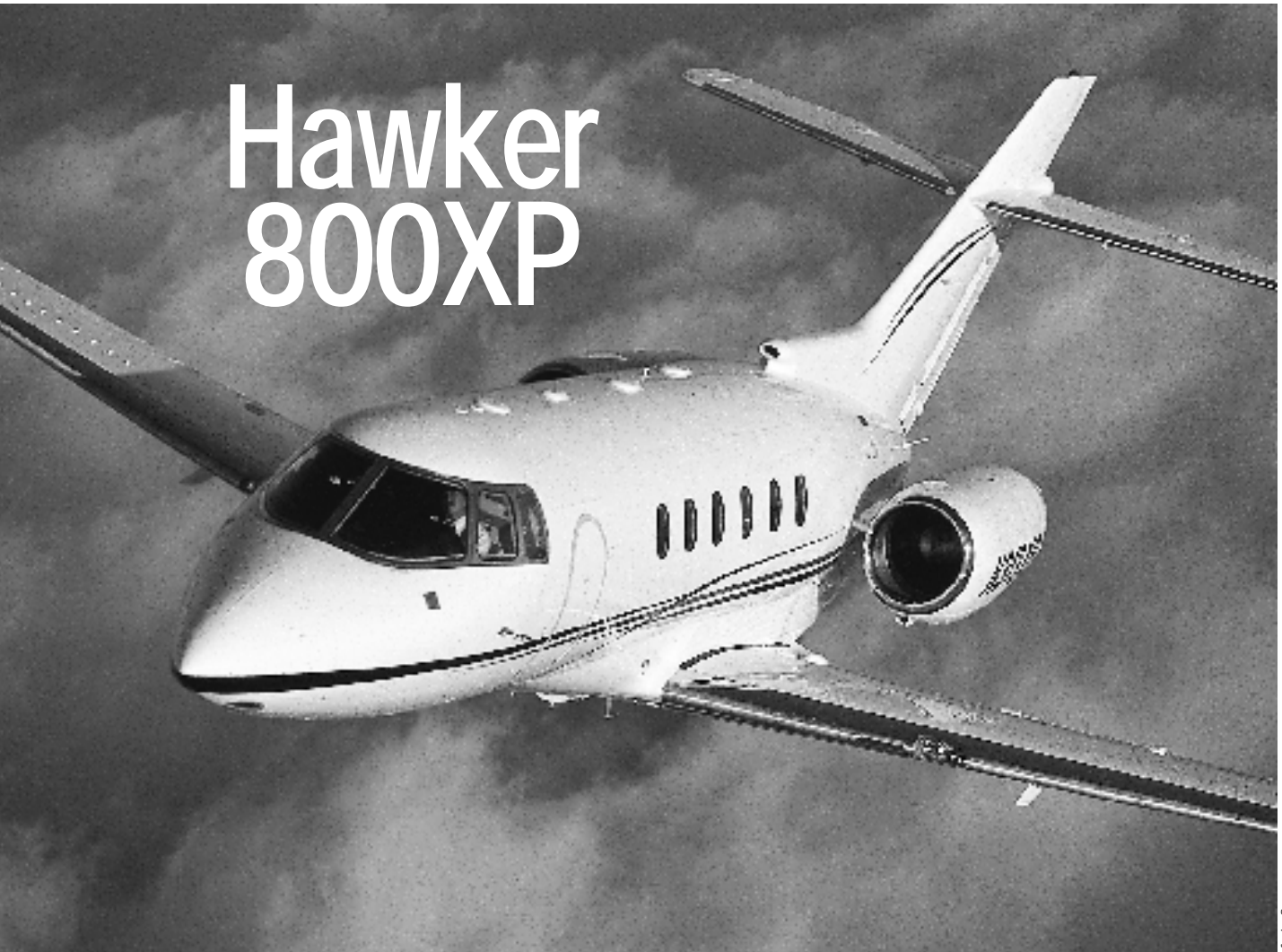


# Hawker 800XP



Paul Bowen Photography

By Fred George

**T**he venerable Hawker 800XP isn't the fastest or the highest flying midsize business aircraft. It doesn't have the most range or the best fuel economy. It can't boast the shortest take-off distances or the most sporting climb performance.

Why, then, does it continue to be the best-selling midsize business aircraft? Simple. It just does a blend of everything better than anything else in its class, ac-

ording to operators. "This is the best Hawker ever built. And it's the best value for the dollar in its size [range]," said one operator, summing up the comments we heard from most others.

These comments weren't statistical aberrations. B/CA was able to contact operators of 57 of the 85 Hawker 800XP aircraft that had been delivered by early December 1998, representing two-thirds of the fleet. Take out the four used for special missions, and there are still operators of 53 aircraft in corporate or charter service that participated in our survey.

Cabin comfort and quiet, long a virtue

of the Hawker family, continues to make the 800XP a favorite with business travelers. "Our passengers just love it," remarked one operator. "It has the best cabin for the money," another added. "Go fly in one for more than a couple of hours," said a third operator explaining the purchase decision rationale. "Pilots don't buy aircraft . . . Passengers make those decisions."

The Hawker legacy of robust airframe construction and proven systems reliability (for most but not all systems) are big assets for passengers, operators said. We heard comments such as "It's as tough as

*The benchmark of the midsize class earns plaudits for cabin comfort, range/payload flexibility, short-field performance and reliability, but operators say systems and product support need improvement.*

Some operators report they occasionally encounter moderate to severe vibration or oscillation in the main landing gear upon landing touchdown. Raytheon has introduced a "rotational free play" maintenance inspection procedure to check for excessive movement. The firm is permanently solving the malady by tightening manufacturing tolerances in the torque drag link bushings and by fitting the aircraft with more rigid steel-construction, torque links and beefed-up torque pins. The 800XP is fitted with the Hawker 1000's wing, featuring vortilons in place of full-span stall fences. The new wing has slightly less drag in cruise and three knot lower stalling speeds. Plenty of high-altitude thrust from the TFE731-5BR engines pushes the 800XP's wing aerodynamics close to the high-speed limit. Some operators report an annoying flap buzz caused by high-speed flow separation, apparently caused by an upper-surface shock wave. Raytheon offers a supplemental vortex generator package that re-energizes the boundary layer just ahead of the shock wave in the vicinity of the flaps. The result? Less Mach-induced, flow separation and flap buzz.



a Mack truck," "It has 30 years of psychological well-being" and "It has old-style technology, but it works." One operator commented, "We've operated Hawkers for 14 years and we've only had one AOG." Another echoed, "It's a workhorse. Put it on the line and it runs every day." Long-time Hawker operators say that these qualities boost customer loyalty.



Solid construction and steadfast reliability aren't the 800XP's only selling points. The XP in the 800's model designation is short for "extended performance." Compared to all previous models, the 800XP's climb, cruise speed and cruise altitude capabilities are substantially better, with the exception of the Hawker 1000, 50 of which were produced between 1991 and 1997.

Pilots especially praised the 800XP for its range/payload flexibility. "You can fill the tanks, put eight passengers on board and still not exceed MTOW," boasted one operator. "It has good performance, for a Hawker," another commented, noting that other aircraft in its class have faster cruise speeds and higher cruise altitudes.

The 800XP's short-field takeoff capability, especially in hot and high conditions, along with its climb and cruise performance, also were mentioned consistently by pilots as being favorite features.

Compared to the Hawker 800, the XP's standard day takeoff field length is 220 feet shorter. In hot and high conditions, the XP needs 1,830 feet less runway than the Model 800.

Performance raves are to be expected, considering that the XP has a six percent better weight-to-thrust ratio than the 800

it replaced. A 10-percent improvement in high-altitude cruise thrust output is even more impressive. In addition, the XP is fitted with the Hawker 1000's wing, which has improved aerodynamics that result in a three-knot reduction in stall speed and less drag in cruise.

Pilots also praised the aircraft's docile handling characteristics, the easy-to-use, tabular data in the improved Flight Manual and the AlliedSignal APU that is approved for operation in flight.

The 800XP, however, isn't without its shortcomings, many of which are related to systems that operators perceive to be outdated. No system collected as many complaints as the TKS anti-ice system. In addition to messy fluid residue on wings and hangar floors, operators said that the fluid washes the lubricant out of the spherical rod ends and bearings of control surface actuators, it causes corrosion and that it's difficult to find supplies at some airports. In comparing TKS with ice protection systems on other aircraft, one operator said "We had alcohol deice on our Twin Beech in the late 40s."

Raytheon countered that tab hinge bearings have been upgraded to stainless steel construction and that Molycoat III grease is more resistant to TKS fluid dilution. Raytheon admits TKS has some limitations, but a spokesman for the firm said TKS "is simple and reliable compared to bulky and heavy bleed-air systems that are also prone to leakage."



Paul Brou (3)

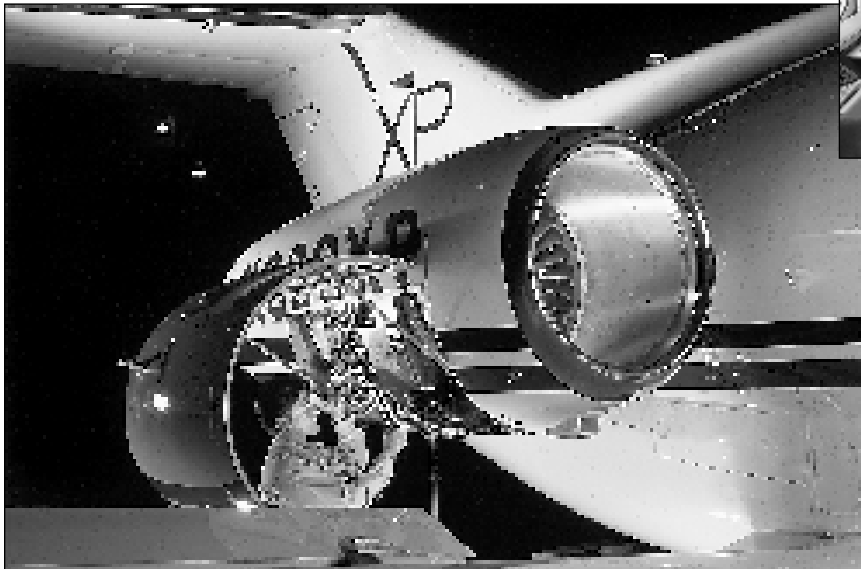
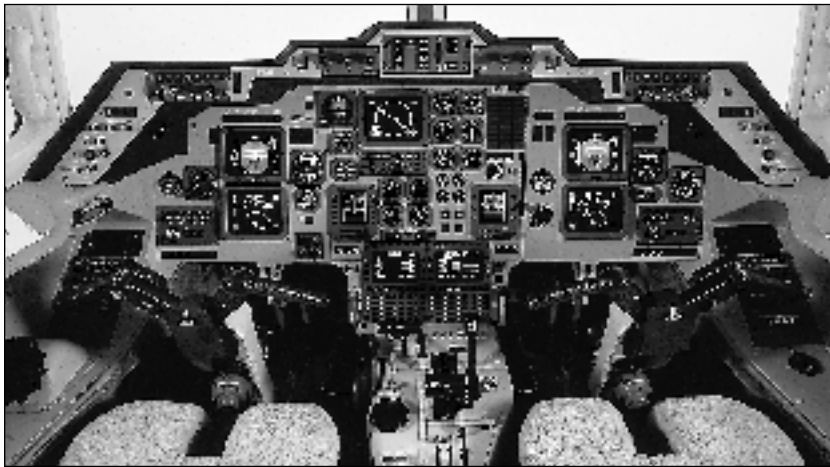
The pressurization and bleed-air systems also received a fair amount of criticism. Operators told B/CA that the manual pressurization controller makes it difficult to modulate cabin pressure changes, resulting in annoying pressurization bumps for the passengers. Raytheon agreed with the assessment, but said that "most experienced pilots are able to minimize this problem."

Cabin pressure bumps also are caused by the mandatory engine bleed-air off takeoff procedure, according to operators. The alternative is to use the AlliedSignal APU as a source of cabin pressurization bleed air for takeoff and landing.

Raytheon countered "Pressurization bumps are a common problem on business aircraft. . . . Leaving the engine bleed-air off provides better aircraft performance and reduces complexity in the pressurization control system."

Although operators of some aircraft may opt to close bleed-air valves to improve takeoff performance, B/CA knows of virtually no other current production business aircraft that expressly requires turning engine bleed-air off for all takeoffs.

The operators' list of gripes wasn't lim-



Paul Bowen Photography (4)

*The factory-standard Honeywell SPZ-8000 avionics package, fitted to 83 percent of new 800XPs, has had its share of growing pains (upper left); however, upgrades solve the problems. Operators of Collins-equipped aircraft, most of which are fitted with Universal UNS-1 FMSes, have high praise for the avionics. Top right: Most 800XPs are configured with a forward, four-chair club section and a single chair, plus three-seat divan. Bottom left: Many operators say the 800XP, while having Mack-truck-like reliability, is too maintenance intensive. Raytheon is revising the maintenance schedule to reduce the workload, resulting in a \$30-per-flight-hour savings. The new plan will be in place this year.*

ited to the 800XP's systems quirks.

The lack of an external baggage compartment was mentioned by the large majority of operators. Raytheon officials point out that the most frequently chosen interior configuration provides 48 cubic feet of carryon luggage volume. If customers need more, Raytheon notes that the 1,552-pound capacity ventral fuel tank can be exchanged for a 28-cubic-foot baggage pannier. The reduction in fuel capacity, though, drops the maximum range by at least 441 miles.

Operators also remarked that the aircraft's 41,000-foot maximum altitude limitation imposed by FAA certification is too low and that the 0.80 MMO redline is too slow. This wasn't a problem with older models. They didn't have the thrust to push the upper and right side limits of the envelope.

Several operators said that the engines' increased thrust allows them to cruise in

the high thirties at 0.78 to 0.79 IMN, resulting in occasional high-speed flap buzz.

Apparently, the flap buzz is caused by shock-induced airflow separation, a quirk Raytheon says it addressed with a service bulletin for the installation of additional vortex generators. The VGs are intended to add energy to the boundary layer just ahead of the shock wave, thereby increasing its resistance to shock-induced airflow separation.

Some operators, though, said the vortex generators only lessen the flap buzz problem. They don't eliminate it. The additional thrust of the AlliedSignal TFE731-5BR engines apparently pushes the 800XP's wing aerodynamics close to its limits.

Many operators also commented that the aft equipment compartment is too small and it has too many components jammed inside. The compartment's inter-

nal volume is so small that only one person can work inside at one time.

They pointed out that, over several generations of Hawkers, many new systems have been layered on top of old ones in the aft equipment bay, thus requiring extra time for removal and replacement of components. In addition, exposed electrical terminals in the aft equipment bay create the potential for short circuits when working in the compartment.

The blade containment enclosure around the AlliedSignal APU makes an oil filter change a two-day job, according to operators. Their conclusion? The slang term "hell hole" is particularly appropriate in the case of the 800XP's aft equipment bay.

#### Why They Opted for the Hawker 800XP

Many Hawker 800XP operators initially perceived the midsize market as having

many competitors. Many looked at the Citation VII, Learjet 60, Astra SPX, Falcon 20F5 (TFE731-5 reengine) or Falcon 200. Such offerings, though, didn't have the seats-full range, or they lacked sufficient cabin volume, or the takeoff field length (TOFL) was too long. A few folks said that the lack of an APU on board some contenders also was a deciding factor.

"There's really not a lot [of choices] out there" and "We need a utility aircraft that we can put to work every day," operators told B/CA.

Other operators looked at the Falcon 50EX, Falcon 2000, the Cessna Citation X or Challenger 604. The Falcon 50EX and 2000 offer more range, payload and performance, but their acquisition and/or operating costs are in the heavy-iron league.

"We fell in love with the Falcon 2000," one operator told B/CA, and quickly added, "But, there were about \$10 million of reasons why we didn't buy it."

The Citation X's price tag is 50 percent higher and its TOFL is longer. A few operators also looked at the \$21.8 million Challenger 604, but decided it too was more airplane than they needed.

In the end, the Hawker 800XP was the only aircraft that offered the right blend of cabin volume, airport and mission performance, operating economics and purchase price, according to operators. One operator commented, "All you have to do is punch the performance of all the other aircraft [in class] and the choice is pretty obvious."

Many 800XP operators had years of experience with one, two or even three generations of earlier Hawkers. Said one operator about his confidence in the airplane, "I have 4,000 hours in Hawkers, and I'm not going to change now." Another operator added, "We've had good success with Hawkers since 1972."

Indeed, the majority of 800XP operators with whom we spoke are previous Hawker operators that traded in older aircraft to upgrade to the newest model or added the XP to their existing fleet mix of Hawkers and other business aircraft.

The next largest group of XP operators traded up from smaller business jets or turboprops in order to gain cabin size, range and operational flexibility.

In mixed fleets, the 800XP typically is one of the smallest aircraft. The list of owners resembles a "Who's Who" in the *Fortune* 500. Large manufacturing, transportation, building materials and oil companies operate 800XPs to transport company employees. Financial services,



Paul Bowen Photography

*Short-field performance is the 800XP's strong suit, operators say. Fill the tanks, fill the seats and there is still payload to spare. The standard day takeoff distance is 220 feet shorter than the Model 800. The XP needs 1,830 feet less runway when departing from a 5,000-foot elevation, ISA+20°C airport, compared to its predecessor.*

insurance and medical companies also fly Hawker 800XPs. One XP is operated by the U.S. government and four are being converted to special missions aircraft by a defense contractor.

In fractional ownership programs, Executive Jet International operates six 800XPs and eight aircraft are assigned to Raytheon Travel Air. In the interest of arm's length objectivity, B/CA did not invite Raytheon Travel Air to participate in this Operator Survey.

Outside of the United States, European, Middle East, Asian and Latin American companies mainly use the 800XP for air charter. Three XPs are operated by the Japanese Air Self Defense Force as U-125A transports.

We encountered some interesting individual 800XP case studies. One large corporation spun off a new subsidiary and purchased an 800XP to serve all its business travel needs. Another operator sold both its Challenger 600 and Citation IIIs and acquired three 800XPs as replacement aircraft.

A third operator bought a twin Bonanza, four decades ago, as its first business aircraft and it's operated Beech or Raytheon Aircraft ever since then, including the current 800XP. A fourth operator has a fleet of two business jet aircraft: a Hawker 800XP and a Gulfstream V.

#### Operations Profile

B/CA's 1998 *Purchase Planning Handbook* reported that the average BOW of an 800XP is 16,270 pounds. This is consistent with what operators reported during the survey. The average weight of their aircraft is 16,362 pounds, but it includes plenty of optional avionics, equipment and supplemental insulation. The most heavily equipped Hawker 800XP in our survey still can carry eight people with full fuel.

Operators report that Raytheon Aircraft's flight planning data for the 800XP is accurate, if not a little conservative. Most say they can fly 2,500 miles comfortably in no wind conditions. "Seven [hours], 47 [minutes] to silence" is the way one operator expressed the aircraft's maximum endurance.

As a result, the 800XP can fly from most airports on the East Coast of the United States to most airports on the West Coast, but not with winter headwinds. Under ideal wind and temperature conditions, the 800XP also can fly from California to Hawaii. Operators told B/CA that they won't guarantee west-bound transcontinental or trans-Pacific capabilities to passengers.

With very few exceptions, most 800XPs are configured with a forward, four-seat club section, a three-place divan on the right side and a single, forward

facing chair on the left side of the aft cabin section. The divan isn't the most comfortable spot for passengers, operators claim. "You can tell a lot about the corporate pecking order by who gets [assigned] those seats," commented one operator.

Alternatively, some operators have foregone the divan for a single forward-facing chair on the right side, for a total of six seats. This makes room for additional luggage storage closets in the aft cabin ahead of the lavatory. Operators told B/CA that, because of limited luggage room, the 800XP is better suited as a briefcase mission aircraft in the eight passenger configuration. The six chair configuration is preferable for extended-range missions.

Operators like the ability to fill the tanks and fill all eight seats, but that's not how most operators use the aircraft on an everyday basis. The average load factor for our respondents was 3.8 passengers, thereby providing each passenger with one of the five single chairs in a typically configured cabin. This allows the three-place divan to be used as a lounge or rest area. The average mission is 1.9 hours in duration and the mean stage length is 753 miles, according to our respondents.

Operators' comments about the 800XP being a work horse are credible, considering utilization patterns. The average XP flies 589 hours per year, according to respondents. Some single aircraft or small fleet operators report flying only 250 to 350 hours per year. But some large corporations and fleet operators fly the aircraft 800 to 900 hours per year. Few business aircraft fly more cycles per year than the Hawker 800XP, which is an acid test of dispatch reliability.

If ATC doesn't limit the cruise altitude, operators say they climb their 800XPs directly to FL 370 or 390 on short missions and cruise at 0.77 Mach, equivalent to 442 knots on a standard day. The majority of operators routinely push the XP to 0.78 Mach on shorter missions.

Operators report that the aircraft burns 2,000 pounds of fuel for the first hour, 1,600 pounds for the second, and 1,500 pph for the third and subsequent hours. For average 1.9-hour flights, operators report an average fuel burn of 1,750 to 1,800 pph.

The reported fuel burn is considerably greater than what is shown in the 1998 *Purchase Planning Handbook*. On a 600-mile mission, the 800XP should burn an average of 1,455 pph. However, the PPH numbers are calculated from takeoff to touchdown. Operators, in contrast, re-

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port block-to-block fuel burns.

Direct operating costs are harder to track from the survey data. Fuel price varies from \$0.85 to more than \$2.00 per gallon. Internal engine reserves or one of three AlliedSignal Maintenance Service Plans cost operators from \$62.50 per engine per hour (internal) to \$125.60 per engine, per hour for MSP. In-house, contract, or service center maintenance has a large scale impact on the cost of inspections.

Raytheon's substantial warranty coverage for the 800XP takes a big chunk out of operating cost for the first five years. The avionics and engines also are warranted for five years. Completion and vendor items are covered for two years.

Most operators report direct operating costs of \$850 to \$1,100, which is consistent with projections in the B/CA's Operations Planning Guide (August 1998).

Living with a Hawker 800XP is a labor-intensive relationship, according to pilots and mechanics. Pilots say that the Approved Flight Manual, while improved with some tabular data, still is onerous to use because of its many intermediate calculations. Many operators have purchased UltraNav computers to streamline the flight planning process. The computer also automatically computes V speeds and takeoff field lengths.

Maintenance personnel say the maintenance manuals have errors and omissions, plus they're not organized around conventional ATA systems codes.

Raytheon quickly responded that all current manuals have been reorganized

using ATA codes and that the new CD-ROM manual system cleans up errors and omissions found in previous hard copy editions.

Maintenance staffs also told B/CA that the 800XP is labor intensive. Raytheon's Service Tracking and Reliability System (STARS), requires time consuming inspections at least every 150 flight hours.

Help is on the way, though. Raytheon is reorganizing the scheduled maintenance program. Forty-seven tasks have been eliminated and the intervals for 43 others have been increased. Other changes include the deletion of 150-hour, six-month, 600-hour/12-month and 1,200-hour/24-month inspections. The inspection program is being divided into more-convenient, 50-flight-hour procedure blocks, most of which can be accomplished in a single shift.

A new Flexible Maintenance Schedule will replace the old labor-intensive system in March. The net result? A \$30 per flight hour savings to operators in the form of reduced maintenance expense.

#### Report Card

Operators generally gave the Hawker 800XP's airframe high marks for robust construction and rock-solid reliability. The availability of increased high-altitude thrust from the AlliedSignal TFE731-5BR engines, however, pushes the XP's aerodynamic design limits.

The XP's engines provide enough thrust to climb directly to FL 390 to FL 410 and accelerate to 0.78 Mach—just 0.02 Mach below the 0.80 Mmo. This pushes the XP close to its high-speed buffet limit and leaves little margin for extra g-load imposed by turbulence or bank angle.

The previously mentioned VG kit increases the high-speed buffet margins, according to operators, but it doesn't completely eliminate the flap buzz or occasional rumble caused by high-speed separation.

Exterior paint needs improvement, according to operators of many older and a few newer 800XP aircraft. They claim it flakes and peels due to improper surface preparation. Some also said the paint loses its gloss after a few years. Raytheon responded that "paint quality is an ongoing problem in the industry" and that the firm has "invested heavily" in upgrading its paint processes. Hawkers have a two-year paint warranty.

The standard Honeywell SPZ-8000 avionics package, fitted to 83 percent of the 800XPs, came in for its share of remarks. Most operators lauded the state-

of-the-art avionics, especially the full-feature NZ-2000 FMS and five-tube EFIS. Honeywell earned good to excellent marks for avionics technology. But poor reliability has been an issue with many flight departments. FMS CDU power supplies have been short-lived, plus the autopilot and/or FMS has caused a wing walk-like roll oscillation.

Compounding those problems, operators say replacement parts provided by Honeywell's SPEX system proved to be no more reliable than ones they replaced. The overall perception expressed by operators was that Honeywell didn't address reliability problems soon enough and was slow to engineer permanent solutions.

Honeywell now has addressed many of those concerns. The FMS CDU power supply has been upgraded with Mod E improvements, standard with 800XP serial number 258349 and subsequent aircraft. The wing walk has been eliminated with Mod EE for the FZ-800 flight guidance computer and Version 4.1F software for the NZ-2000 FMS. The three service bulletins will be provided at no cost to customers.

A Version 5.0 FMS upgrade package, available for \$8,000 per unit, will be made available this year for retrofit to NZ-2000 boxes. Version 5.0 upgrades the FMS processor to an aviation-grade Pentium chip, quadruples the amount of database memory and provides software enhancements. It will be standard in all 1999 production 800XPs.

The remaining 17 percent of operators with airplanes equipped with optional Collins avionics, in contrast, said their avionics are reliable and that the Universal UNS-1 FMS performed perfectly.

Both Honeywell- and Collins-equipped aircraft now have RVSM certification for North Atlantic operations, effective December 1997. RVSM certification is standard for serial numbers 258304 and beyond. On older aircraft, it's available as a \$19,900 service bulletin.

Enhanced GPWS now is certificated for Collins-equipped aircraft. EGPWS certification on Honeywell-equipped aircraft is due early this year.

The AlliedSignal TFE731-5BR turbofan engines, rated at 4,660 pounds of thrust for takeoff, generally received good to excellent marks. A few operators complained about oil seal leaks, which have been a recurring problem with the TFE731 engine family. AlliedSignal says the oil seal problem has been cured by service bulletin 72-3613 Rev. 2 (August



Paul Brou

*The manual pressurization controller makes it difficult to avoid bumps in the pressurization, according to operators. The mandatory, engine bleed-air off takeoff procedure aggravates the problem.*

1997), which the firm claims is a permanent fix.

Miscellaneous gripes? The 800XP's Lucas starter/generators are prone to premature bearing and brush wear. Lucas and Raytheon actively are working on an upgrade. Operators told B/CA that the cockpit has too many lighting controls, switches and rheostats scattered about various panels. Raytheon agrees. If a block change is planned in the future, the lighting controls may be modernized.

The hydraulic system is prone to overheating. A temporary fix calls for a bypass line to be installed in the return plumbing. However, the bypass bleeds down system pressure after engine shutdown, thereby requiring the system to be pumped up manually by line personnel in order to set the brakes. Raytheon is engineering a change to be introduced this year that will alleviate the problem.

A few operators thought that the numerous, manually controlled low-pressure and high-pressure fuel shutoff valves were old fashioned. Raytheon, however, says manual valves have "none of the complexity or reliability problems of electrically controlled, motor operated valves found on other aircraft."

Some aircraft have suffered a mild to severe landing gear oscillation problem

on touchdown. Raytheon claims that the problem has been almost eliminated with the introduction of tighter tolerance torque link bushings, more rigid steel-construction, torque links and beefed up torque pins. A "rotational freeplay" inspection procedure has been incorporated in the maintenance manuals. Early this year, a torque link system retrofit kit will be made available to operators of older 800XP aircraft.

With the above exceptions, most operators gave the 800XP's systems good or excellent grades. The fit and finish of the cabin received high praise from new operators who had upgraded from smaller aircraft or older Hawkers. Heavy-iron operators had different expectations. They said the interior was average or good, but it's likely they were using Challengers, Falcon Jets or Gulfstreams as the benchmark against which they gauged the 800XP.

#### Raytheon Aircraft Product Support

Operators' views on Raytheon Aircraft's product support were mixed, at best. Some operators, especially *Fortune* 500 firms, along with EJI, praised Raytheon for quick response and excellent factory support. These firms have the financial clout to stockpile spare parts for immediate replacement if and when they are needed. Virtually all operators gave Raytheon's field technical representatives high marks for product knowledge and customer advocacy.

One operator beamed that product support has been "nothing but excellent" from Raytheon Aircraft Services (RAS) in Little Rock and Garrett Aviation in Augusta, Ga. "Product support is greatly improved. They're really tryin'." drawled another operator. The RAS centers in Houston, Little Rock, Tampa and Wichita earned high marks from several large operators. "I'd give Raytheon Aircraft product support an 'A,'" a third operator said.

Smaller operators, especially single airplane and firms with smaller fleets, were not as sanguine. When asked about the five worst features of the 800XP, a number of them put Raytheon Aircraft product support at the top of the list of shortcomings.

Poor spare parts availability, lack of coordination between various RAS centers, and a general lack of urgency were frequent complaints. They haven't realized that the attitude toward product support will affect future sales of aircraft, such as the Horizon," griped one operator.

Operators said paperwork requirements

for maintenance procedures, warranty claims and parts exchanges were too long and too complex. Regarding the Raytheon Aircraft Parts Inventory and Distribution company, one operator said, "The only thing rapid about RAPID is your frustration level."

Raytheon responded that a new one-page parts warranty claim form was introduced in May 1998 that reduces the paperwork burden. In addition, spare parts from RAPID now can be ordered directly by phone or fax without having to use a lengthy form, according to Raytheon. One operator countered, "The warranty claims form is improved. But it surely isn't [up to the standards of Bombardier's] Smart Parts."

Some small firms said that their in-house maintenance departments had to run a gauntlet of competency challenges in order to qualify for warranty work reimbursement. Raytheon acknowledged that, in lieu of taking an aircraft to an authorized service center, in-house maintenance departments must meet the firm's standards for technical training, spare stock and tooling to qualify for warranty labor reimbursement.

Delays in parts deliveries and lack of an effective inventory locator system often have been problems, say operators. Many major components are not stocked by local Raytheon Aircraft Service centers, and they must be shipped from Raytheon's spares depot in Salina, Kan. Operators said they thought that an air freight hub, such as Memphis or Louisville, would have been a better choice for a central parts depot.

"I've heard horror stories from my maintenance troops," one operator said. "The parts supply is slow, we get the run around on the phone and the wrong parts get shipped sometimes."

Raytheon admitted that moving the Hawker production line from England to Kansas caused some early transition problems, but the situation is greatly improved. Parts inventories have been boosted by 25 percent in the last 12 months. Company officials claim that "Our ability to ship the right part to the right place has improved" and that "We recognize [that] there will be times where we fall short of expectations. As fill rates continue to improve, it will reflect in our ability to deliver."

Smaller operators had a bone to pick with procedures and product knowledge at some local RAS centers. For example, one operator said that the parts department at RAS at Van Nuys seems to keep banker's hours.

"They [Raytheon] are trying to sup-

*Raytheon admitted that moving the Hawker production line from England to Kansas caused some early transition problems, but the situation is greatly improved. Parts inventories have been boosted by 25 percent in the last*

port Hawkers with a Beech mentality. It might work for a doctor dropping his Bonanza off at a service center, but it doesn't work for us."

Raytheon responded that the parts department is open from 0800 to 1700 local Monday through Friday. Maintenance personnel, who also have access to the parts room, work until 2300 hours on weekdays. Raytheon says it has "invested hundreds of thousands of dollars to train technical personnel in the Hawker product line" at the Van Nuys facility. Technicians also "work weekends and scheduled holidays to meet customer needs," says Raytheon. Customers can drop by and pick up parts during those hours; however, there is no regular parts shipping and receiving function after 1700.

If an operator establishes credit with one RAS location, there is no reciprocity with other RAS facilities, say operators. RAS centers seemingly are independent from each other and the home office in Wichita. There is no coordination or communication from center to center.

"These issues are being addressed," Raytheon says. Since July 1998, a new procedure allows the exchange of credit references between various RAS centers. RAPID provides one-stop calling for parts at (888) 727-4344. Technical support is available at (800) 429-5372.

Operators also told B/CA that Raytheon needs to compile service and system difficulty reports and make them available online to customers by means of a secure Internet Web site, similar to Gulfstream's breakfast notes program. "This is an excellent point, and [it] is already being reviewed," Raytheon responded.

Overall, the negative comments about parts availability, lack of coordination between RAS facilities, red tape paperwork and slow response outweighed the kudos. Raytheon, though, intends to overcome product support woes. "Quality of our products and our services is key to our success," company officials said.

#### Would They Buy Another?

Most operators' praise for the Hawker 800XP greatly overshadowed their gripes about product support. "Overall, yeah, there's going to be some headaches, but Raytheon is working on fixing them," said one operator, expressing the sentiments of several others.

About the aircraft, we heard comments such as, "The bugs have been worked out of it," "It has the biggest cabin for the price," and "Look at your mission. I would highly recommend it." Operators also said "It's the best value for the money" and "The XP is the only way to go."

Several 800XP operators with whom we spoke are on the Hawker Horizon customer advisory board. They're looking forward to the next generation Hawker, which promises to be roomier, faster and higher flying, along with having even better dependability, upgraded systems and easier maintenance access, thus providing a logical upgrade path for long-time Hawker loyalists.

But lingering questions about product support expose Raytheon to potential defections among Hawker family operators. We heard comments such as "The Hawker is a good airplane, but with Raytheon involved, I'd be hard pressed to recommend it," "We're looking at a Citation Excel, and maybe even a Falcon 50EX," "Nowadays, we're looking at new aircraft, including the Galaxy, as well as the Horizon," and "Raytheon bent over backwards . . . until the day they got our [purchase price] check."

If Raytheon product support improves, then compliments will smother complaints. Comments we heard such as "No question about it. Anybody who is looking for a midsize airplane just ought to go out and get in line for one" and "Nothing in its class competes with it for range, payload and comfort" will go a long way towards preserving the Hawker line as a bestseller in the next century. B/CA