



Preowned Aircraft Report

by Mark Huber



Market continues to stabilize

Good news. The hemorrhaging that triggered the great used business aircraft bloodbath of the last few years appears to be over, with inventories rationalizing. But that doesn't necessarily mean that the market is in for a smooth recovery. Used aircraft prices have yet to fully bounce back and are being hampered, in part, by new aircraft deep discounting, notes JetNet IQ founder Rollie Vincent.

"The OEMs need to firm up their own [new aircraft] pricing policies—Bombardier and Textron in particular," Vincent said. "They continue to be the leaders in discounting, [and] they've been doing it for some time. There're still really aggressive deals from those manufacturers," he said.

Textron CEO Scott Donnelly offered a somewhat different take in a third quarter analysts' call. "We still struggle with this notion that used aircraft pricing doesn't seem to want to move up, so that does pressure customers, because the trading values and the step up to new aircraft is more challenging when these guys have low residual values.

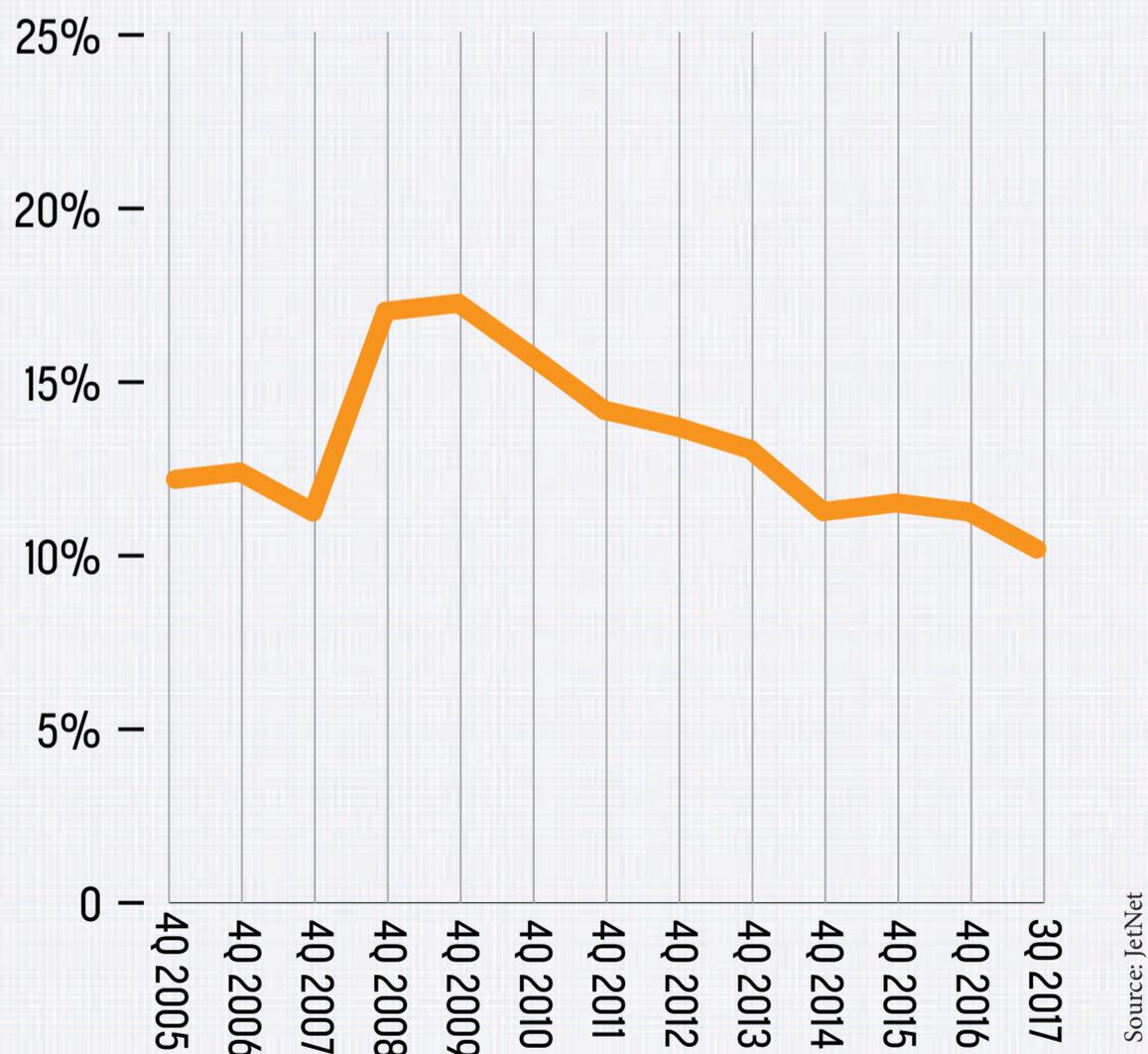


Despite the fact that used aircraft availability has dropped significantly over the last number of years, we are not seeing that reflected in used aircraft pricing.”

Donnelly maintains that Textron is holding the line on new aircraft pricing. “We would love to see residual values of used aircraft coming up, and that would take some pressure off these customers. But that’s not something we control, and it’s a little perplexing for us as you see tightening. When the market tightens up for those used aircraft, why are we not seeing some lift in the pricing? But we haven’t seen that yet.”

Donnelly thinks that part of the problem is that aircraft owners haven’t come to terms with the new market realities of used aircraft pricing as opposed to decade-old market dynamics when a general undersupply of business aircraft triggered inflated used aircraft pricing. And this bias is keeping some used aircraft from entering the market. “There’re a lot of transactions. [It’s] not hard to move used aircraft. People just need to get comfortable with the reality of how these things depreciate and that the residual value over time is different than what it was in the early 2000s.”

Percentage of Fleet for Sale Monthly Average





It may take owners longer to achieve that comfort level. Some recent data is encouraging. Amstat noted that the first half of this year closed with inventories measured as a percentage of the active fleet at their lowest levels “in some time.” Overall used jet inventory was down 5 percent for the year, with 44 newer models posting inventory declines and 13 increasing, according to UBS’s analysis of JetNet data.

Over the summer, Embraer CEO Paulo Cesar de Souza e Silva said there were “some signs of improvement on the used jet markets” with “some stability in prices.”

Alex Overstrom, head of aviation finance for PNC Bank, said, “Preowned makes up the majority of our portfolio, but when you look at originations over the last few years, the contribution from new is definitely increasing, particularly on a dollar-weighted basis. That’s both strategy and cost of new aircraft relative to used.”

However, a decade worth of data analyzed by AircraftPost shows that inventory levels have been climbing year over year and the number of aircraft sold as a percentage of the overall fleet has stalled, a phenomenon that continues to put downward pressure on new aircraft pricing. The percentage of aircraft available for sale in AircraftPost’s tracked fleet doubled from 2008 to 2016 while the percentage of the fleet changing hands was only 6.2 percent from 2012 to 2016.

UBS noted this fall that “used pricing is still seen as declining, albeit at a slower rate.” Recent inventory data this fall also shows a modest decline, according to JetNet, with business jets available for sale as a percentage of the fleet down to 10.4 percent, a 1.1 percent decline and turboprops falling to 7.4 percent, a 0.7 percent drop.





JetNet reported that over the first nine months of this year, the preowned business jet sale transactions rose 5.9 percent year over year to 1,946, but time on market remained constant at 313 days. Meanwhile, turboprop transactions fell 10.2 percent, to 911, and the average days on market increased by 13, to 309 days. The preowned business jet inventory is at its lowest level in nearly a decade, and sales are up 6 percent year over year, noted JetNet vice president Paul Cardarelli. However, he cautions that the numbers of available aircraft are being impacted by owners who have decided to hold aircraft longer due to declining residual values.

One wild card yet to play out in all of this is the effect of the FAA's 2020 deadline for equipping civil aircraft with ADS-B. A consensus seems to be developing that a large percentage of the U.S. business aircraft fleet will not meet the equipment deadline and that the deadline is a likely impetus for older aircraft to be parked or scrapped.

"Readiness is nowhere near where it needs to be," said Vincent. "Only one-third of the fleet is ready. I think it is going to help separate the wheat from the chaff." He noted that operators of old underutilized aircraft might decide to part their aircraft out. He added, "A chunk of the fleet will be down and out for a while. People are waiting for cheaper solutions. Very few expect the FAA to change the deadline."

"I think it [the ADS-B mandate] will bring down inventory, particularly among some older aircraft—from model years in the late 1990s to even early 2000s," said PNC's Overstrom. "In some cases the cost to upgrade just doesn't make sense relative to the value of the airplane. That may help clear the market and alter supply-demand dynamics to improve pricing and value."

Analyses earlier this year from Duncan Aviation and JetNet both show that the U.S. business jet fleet is nowhere near equipping on a pace for widespread compliance by the deadline. "At the current rate of ADS-B adoption, about 4,670 aircraft will still need ADS-B when the mandate goes into effect," noted Duncan Aviation's Mark Cote, company vice president for parts sales, avionics, and satellites.

Predictably, older aircraft have a lower equipage rate than newer models, according to JetNet data earlier this year. Of the more than 13,000 business jets and turboprops based in North America that are 15 years and older, only 1,834 or 13 percent had been equipped with ADS-B; however, for aircraft 14 years and newer the rate was nearly 30 percent. Non-equipped aircraft could still be viable on the international market, but would be excluded from U.S. airspace. Whether or not these aircraft could attract financing is another matter. "While we make each financing decision individually on the merits of



that specific transaction, generally, the airplanes we finance are less than 20 years old,” said PNC’s Overstrom.

While some of these unupgraded aircraft could find homes abroad, it is salient to note that outside the U.S., the used market is even softer. The majority of preowned business jet transactions were outside the U.S. in 2008; post-recession that number has shrunk to less than 34 percent. In the face of falling global energy prices and Chinese political reform, the demand for preowned aircraft, particularly large-cabin aircraft in the BRIC countries (Brazil, Russia, India, and China) has substantially declined, according to Amstat. What demand remains appears to be shifting from large-cabin to medium and small jets. There are some signs of promise in Brazil and Mexico; in the former, preowned transactions have climbed 23 percent over the last year.

That said, the overall market consensus seems to be another year or two of tough price sledding for the preowned market until inventories see further tightening. But a return to the robust used aircraft pricing of 2002-2008 may never come again according to Textron’s Donnelly. “I don’t think that’s realistic. I think people have to get their head out of that.”

Jets

While the preowned market has stabilized, that stabilization has been far from uniform. “Late-model anything, there’s almost nothing available; and in large-cabin aircraft built in the last four to five years, there’s very little available,” Vincent said. The models that have shown the most volatility over the last year are the Embraer Legacy 650 and the Gulfstream G450 Vincent said. “They’ve really plummeted in value, albeit for different reasons. The G450 is going out of production while Embraer has realized that [the large-cabin market] is a tough segment to play in. That market has tightened up now and a lot of the inventory has been snapped up, but airplanes have changed hands at dramatically low prices.”

“A higher percentage of the fleet is coming onto the market year over year, yet we’re not seeing much movement in the percentage being sold, particularly with in-production models,” said AircraftPost president Dennis Rousseau earlier this year. Indeed, while the percentage of in-production aircraft on the market declined, concurrently the percentage sold did as well, creating a virtual wash and certainly no upward pricing pressure, overall.

The *Vref* valuation indices bear this out, showing continued declines across all categories for this year’s third quarter, with light and late-model large jets posting 3 percent declines from the second quarter, while midsize valuations fell off 2 percent. Compared



with last year's third quarter, light jets are down 4 percent and midsize and large jets are both down 5 percent. The one glaring difference is late model large jets, down 10 percent year over year.

Large-cabin

A cursory sampling of the *Vref* database of select 1997, 2007 and 2012 model valuation changes between the beginning of 2016 and late 2017 shows continued price softness in the large-cabin sector across virtually all models. A 2012 Legacy 650 valuation collapsed from \$17.75 million to \$11.5 million while the G450 dropped from \$23.25 to \$16.5 million.

Earlier model years also took a beating, though not quite as dramatic, with a 2007 Legacy 600 declining from \$8.5 to \$6 million and the same year G450 moving from \$14.75 to \$11 million. While the market for the G550 tightened considerably, that didn't stop prices from falling. In fact, a 2007 model dropped from \$26.5 to \$17.5 million and a 2012 vintage lost almost \$10 million down to \$27 million. The average year-over-year decline for a G550 is a sobering 11.5 percent, according to AircraftPost. Though it quickly corrected, an early plunge for the flagship G650 was even more dramatic, with a 2012 model declining from \$61.5 to \$47 million. The four 2013 G650s sold during the first eight months of this year commanded an average price of \$49.1 million.



Gulfstream G450



Bombardier large-cabin models also took a hit, with a 2007 Global 5000 dropping from \$18.5 to \$13 million and a 2012 Global 6000 moving down from \$36.5 to \$31.5 million. Large-cabin Falcon trijets fared little better, with a 2012 7X dropping from \$33 million to \$26 million and the same year 900LX down from \$28.25 million to \$23 million. “There are very few late model 7Xs available,” said Vincent. While 2013 7Xs traded so far this year were commanding an average price of \$49 million, that year vintage dropped 25 percent last year according to AircraftPost.

Values for Challenger 604s and 605s continue to fall; a 1997 604 declined from \$4.8 to \$3.6 million, a 2007 from \$9.7 to \$7.5 million, and a 2012 605 from \$15.5 to \$12 million. Older 604s may see values stabilize in the wake of announced upgrade programs for the type including the recently announced Nextant 604XT program. The upgrade for the entire aircraft is estimated at \$3 million to \$4.5 million for new avionics, new paint, interior, and a 500-nm range extension that is expected to include winglets. The \$599,950 cockpit retrofit piece involves installing Rockwell Collins Pro Line Fusion avionics plus \$199,950 for Safe Flight’s autothrottle AutoPower system.

Nextant executive v-p Jay Heublein said the timing is optimal for the 604XT program. “Values on Challenger 604s have continued to fall and make it a very attractive airplane. It’s still a relative young airframe with decades ahead of it. A large part of the fleet is coming up for significant structural inspections over the next three to four years,” he added. “What a perfect time to think about significantly upgrading your airplane.”

For those unmoved by that argument, a newer 2015 Challenger 650 has already depreciated from a new price of \$32.35 million to \$23 million. While these large price movements would normally indicate a market oversupply, that is not the case, Vincent insists.

Super-mediums

Transactions are up, but values are down. Transactions as a percentage of the fleet increased to 4.9 percent from 1.6 percent at the beginning of the year for the Gulfstream G200, but here again, valuations dropped off; a 2007 model fell from \$6.75 million to \$5 million and a 2012 from \$17 million to \$13 million. Citation Sovereigns are largely staying put, with valuation changes reflecting this low churn; a 2007 model dropped from \$7.4 million to \$6.45 million and the decline for a newer 2012 was from \$10.5 million to \$9.15 million. Citation Xs of all vintages exhibited gradual depreciations across the sampling; a 1997 model fell from \$3.2 to \$2.8 million, a 2007 from \$7.25 million to \$5.8 million and a 2012 vintage from \$12.25 to \$10.8 million.



Dassault Falcon 2000LXS

The fall for a Bombardier Challenger 300 was a tad more pronounced, with a 2007 model declining from \$9.75 to \$8.35 million and a 2012 from \$14 million to \$11.75 million. Falcon 2000s are depreciating in an ordinary trajectory: a 1997 model dropped from \$4.5 to \$3.6 million, a 2007 2000LX from \$15.7 to \$12 million, and a 2012 2000LX from \$22 to \$18.25 million.

Mediums

This sector was largely drama-free and predictable this year, having taken a major depreciation hit last year. The fall UBS Business Jet Market Index gave turboprops the highest score—54—of any market sector, up 7 percent sequentially. However, if the middle market is poised for some kind of comeback, perhaps driven by a shift in international demand, there is certainly no clue in current valuations. Ten-year-old Hawkers, Gulfstream G150s and Learjet 60s are all trading at or below \$5 million—sometimes way below \$5 million.

A decade-old Hawker 800XP or Learjet 60XR can now easily be had for around \$3 million while G150s of the same vintage fetch about \$4 million. Newer 2012 vintages are doing marginally better; the G150 fell from \$9 million to \$6.3 million, the Hawker 900XP from \$7 million to \$5.5 million, and the Learjet 60XR from \$5.4 to \$4.4 million.

Citations at the light end of the medium range are all exhibiting gradual price attrition; 1997 Ultras have depreciated down to almost parts value at \$1.45 million, 2007 Encores fell from \$4.05 to \$3.25 million, and the 2012 XLS+ dropped from \$7.4 to \$6.6 million. Falcon 50EXs dropped; for a 1997 from \$3.7 to \$3.1 million while 2007s lost more than \$1



million, from \$7.3 million to \$6.2 million.

Embraer's new market entrants in the segment, the Legacy 450 and 500, also experienced the type of depreciation one would expect, given their relative ages; a 2015 Legacy 450 that sold new for \$16.5 million is trading for \$15 million and a same year Legacy 500 that was \$20 million new is now \$16 million.

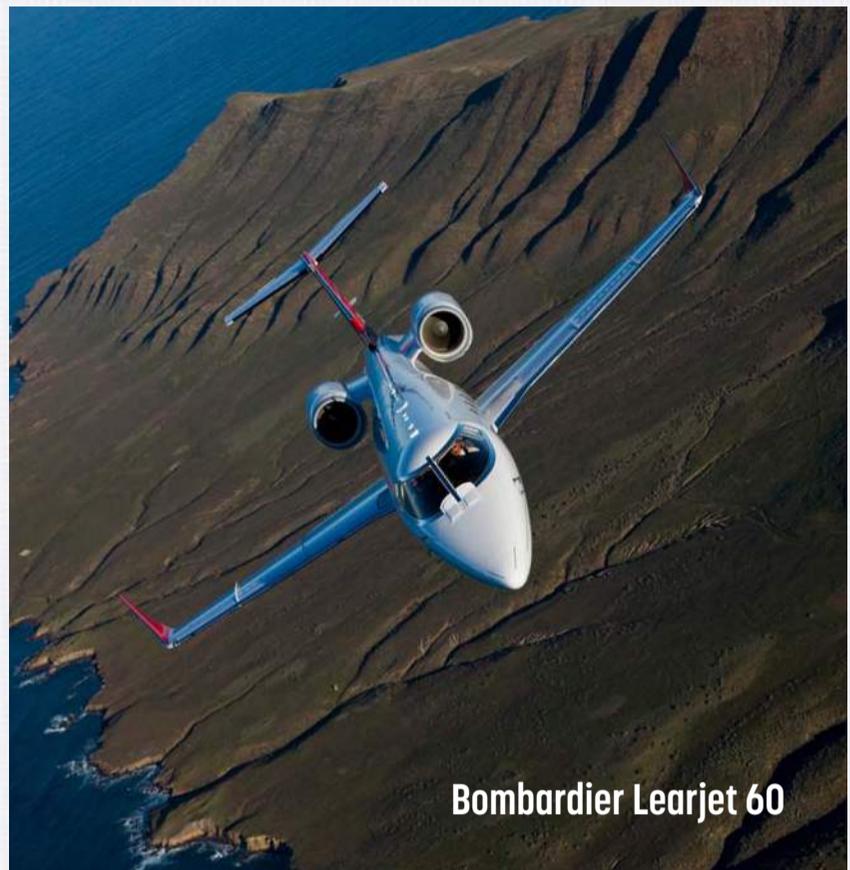
Light

On the light end of the market, Vincent said that "The [Embraer] Phenom 300 has shown some strength in terms of value retention, and I like what I see with that." He also pointed to the 53 HondaJets delivered through October as a sign that the light jet market is coming back; however, he said he was surprised to see 10 already back on the market. A 2012 Phenom 300 dropped in value from \$7.2 to \$6.2 million while a 2016 HondaJet already has declined from \$5.3 million to \$4.65 million. Phenom 300 values could be bolstered by the introduction of the pricier 300E announced in October.

Learjet 40XRs continue their deep dive; a 2007 dropped from \$2.7 million to \$2.15 million and a 2012 from \$5.6 to \$4.45 million. The slightly larger Learjet 45XRs parallel this trend, with a 2007 falling from \$4 million to \$3.3 million and a 2012 down from \$6.4 to \$5.3 million.

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This year's announcement by Textron that it discontinued the Cessna Citation Mustang has put mild downward price pressure on that model. Textron announced in May that it had ended Mustang production after a 12-year run that produced more than 470 aircraft. A 2012 Mustang that sold new for \$3.2 million in 2012 is now fetching \$1.9 million and a 2007 model can be had for an average of \$1.4 million. The valuations do not reflect the announcement of available after-market options in October designed to keep the aircraft relevant, including an avionics upgrade to the Garmin G1000NXi flight deck and the Tamarack active technology load-alleviation system (Atlas), designed to yield a 15 percent range increase, 400-pound improvement in maximum zero fuel weight, and reduced climb times. Textron's upgrade strategy for Mustang customers had always



Bombardier Learjet 60



been to move them into new aircraft, most notably the hot-selling M2. Used values for that aircraft have been holding steady. A 2013 new M2 that sold for \$4.4 million still commands \$3.3 million.

Also on the light side of light jets, 2007 Eclipse 500s jumped in average value from \$700,000 to \$800,000, undoubtedly reflecting the large number that have received product upgrades over the years. Values for new production Eclipse 550s from 2014 dropped from \$2.6 million to \$2.3 million. However, these valuations were computed before fresh news of Eclipse parent One Aviation's latest financial difficulties became prominent. How that shakes out will have a further impact on product support and ultimately, valuations. In October, One laid off a second round of employees at Eclipse's Albuquerque, New Mexico facility amid reports it was having difficulty procuring parts to support the existing fleet. The company blamed the latter on supplier quality issues.

The 2012 Embraer Phenom 100 saw a mild decline in valuation from \$2.85 to \$2.5 million. However, aftermarket and factory options are available for the aircraft that should help it hold valuations relative to the market going forward. Chief among these is Embraer's "ACE" (Aircraft Completion by Embraer) interior refurbishment options that add more comfort, functionality and reliability to the interior over stock aircraft, including improved seating.

Up the food chain but still within the category, prices for most flavors of Cessna Citation CJs saw market drops, save for the 2007 CJ2+, which declined a mere \$155,000 from \$3.55 million to \$3.4 million and the newer 2012 CJ3, which fell from \$5.75 million to \$5.4 million. Most other CJs manufactured between 2007 and 2012 lost approximately



\$500,000 across the board with the exception of the 2012 CJ4, which dropped from \$7.2 million to \$6.3 million.

Light Beechcrafts are arguably already on the bottom; a 2012 Premier fetched approximately \$1.85 million, while 1997 Beechjet 400As are trading in the \$800,000 range and a decade-newer 2007 400XP already has sunk to \$1.825 million.

Low 400A and 400XP valuations already have encouraged the aftermarket to re-think the previously announced upgrade programs for these aircraft. Nextant Aerospace is now offering its 400XTi whole aircraft remanufacturing program on an a la carte basis. Nextant already has remanufactured 20 aircraft as 400XT/XTis and last year announced that it had approximately 20 percent of the 550 applicable 400/400XP aircraft signed up for the \$3 million program, which includes new engines, avionics, paint and interior. However, earlier this year the company began offering an incremental program as an additional option. Customers can start with a \$500,000 avionics upgrade to the Rockwell Collins Pro Line 21 cockpit that includes a TBO extension on the stock Pratt & Whitney Canada engines to 5,400 hours.

Elliott Aviation also offers an incremental upgrade program badged the 400E that features Garmin G5000 touchscreen avionics (\$400,000), GoGo Wi-Fi, new paint and





interior including a new interior shell kit that yields more cabin space, new cabinetry, lighting, and electric window shades. The entire package with avionics is priced at \$700,000.

Textron Aviation also offers its 400XPR program in stages including engines, avionics, paint and interior, and winglets.

Turboprops

When it comes to used business aircraft resale values, slow and steady wins the race. Turboprops for sale represent just 7.4 percent of the fleet, according to JetNet and the trend is for that inventory to decline further. Across the board, used turboprop prices are, for the most part, monotonously steady, with most either holding price or posting modest valuation declines far smaller than their jet cousins.

As *Vref* noted earlier this year, turboprop values have held strong for the last four consecutive quarters.

There are of course trend exceptions, such as both long- and short-body Mitsubishi MU-2s, which actually increased in value over the last year, and the Piaggio Avanti, that continues to fall hard. But for the most part there's "Nothing to see here."

Twins

There are the aforementioned market malcontents including the Piaggio. Values of a 2007 P.180 Avanti II dropped from \$2.4 to \$2.1 million and a newer 2012 was down from \$4.6 million to \$4.1 million. The situation was not helped by confusion last year about Piaggio's future. Now the company has reaffirmed its commitment to building new-production aircraft and continuing needed product upgrades such as new wheels and brakes. Earlier this year, Piaggio Aerospace CEO Renato Vaghi proclaimed, "Our primary goal in 2017 is to continue to put our customers first by offering them the highest level of support throughout the life of their P.180" by offering avionics upgrades, new maintenance regimes and an improved landing gear system available for retrofit. These, he said, are part of a "wider, long-term customer-driven strategy."

The only comparable motion was on the high end of the twin spectrum, with a 2012 King Air B350 declining from \$4.5 million to \$4 million. But as a whole the King Air line was remarkably steady with valuation changes that look more like rounding errors. Values for C90s circa 1990 and 1997 held steady at \$850,000 and \$1.075 million, respectively. Movement in the B200 segment was about as exciting. Valuations for 1990 models moved from \$1.2 to \$1.15 million, on a 1997 from \$1.5 to \$1.45 million, 2007s held steady



Piaggio Avanti



at \$2.3 million, and 2012s decreased marginally from \$3.125 to \$3.025 million. Older B350s also held fairly even; a 1990 dropped from \$1.5 to \$1.4 million, a 1997 held steady at \$1.95 million, and a 2007 was off from \$3.3 to \$3.2 million. There is no shortage of parties offering King Air upgrades and/or modifications, but none of this seems to have an effect on used valuations writ large.

In October, Elliott Aviation marked its 500th Garmin G1000 installation on a King Air. The company said it was the first to install the avionics system aboard the King Air 200 series and the 300/350, and the first to deliver the upgraded Garmin G1000NXi package. Innovative Solutions & Support (IS&S) and Blackhawk Modifications have announced an agreement for Blackhawk to distribute and install IS&S's NextGen flight deck and integrated turboprop autothrottle system for King Air 200s and 350s. The two models account for more than 3,000 airplanes, according to IS&S, and there are another 2,000 C90 through E90 and F90 models that are upgradeable as well. In the twin-PT6 King Air application, the autothrottle will include engine-out thrust control, which in case of engine failure automatically sets the remaining engine to the correct power level if air-speed drops below minimum controllable airspeed.



Advent Aircraft Systems has developed an eABS anti-skid braking system for B300/B200 series King Airs. “This is the first ever ABS solution for the King Air, providing you with reliable, effective anti-skid braking in a lightweight, high-value, easily installed system,” said Tom Grunbeck, Advent’s vice president of marketing and sales.

Blackhawk has also rolled out its latest King Air engine upgrade program, the XP67A, that provides a 25 percent to 30 percent power increase; a 400 thermodynamic shp increase over the stock PT6A-60A engines; and better climb, cruise and high/hot performance, while reducing overall aircraft weight by 18 pounds on King Air 350 series. The upgrade is available for both civil 350s and special-mission/government 350ERs, the latter in cooperation with Blackhawk’s Vector-Hawk military sales division and the Sierra Nevada Corporation. It includes two new Pratt & Whitney Canada (P&WC) PT6A-67A engines, new MT five-blade composite propellers and spinners and a True Blue Power lithium-ion battery. Blackhawk CEO Jim Allmon said the upgrade makes the XP67A-equipped turboprop “the fastest King Air on the planet.” Blackhawk said that at FL280, ISA+ 20 degree C day, max cruise, 13,000 pounds, the XP67A upgrade delivers 332 kts versus 292 kts for a stock King Air 350. Under the same conditions, the XP67A climbs from sea level to FL350 in 18 minutes, compared with 45 minutes for the stock King Air 350. Meanwhile, in October, Nextant Aerospace announced that it had completed certification trials for the King Air G90XT’s new single-lever engine control system, paving



the way for FAA certification. The system allows each engine to be controlled with one lever, leaving pitch control to the Fadec.

Stable pricing has continued for extreme legacy twins such as the Cessna 441 Conquest II, Piper Cheyenne series, and Twin Commanders. Values of 1985 441s decreased from \$1.3 to \$1.2 million and 1983 Cheyenne IIs from \$520,000 to \$505,000. A 1985 Twin Commander 1000 still commands \$1.35 million, down from \$1.375 million, while an older Twin Commander 950 declined from \$975,000 to \$900,000. The Mitsubishi MU2s increased in value, with the long-body 1985 Marquis rising from \$650,000 to \$705,000 and the 1981 Solitaire increasing from \$540,000 to \$555,000.

Singles

Single-engine turboprops appear to be a rock-solid value store. Cessna Grand Caravans are increasing in value across the board regardless of age, up modestly for the year by about \$25,000 to \$30,000. Blackhawk and Metal Innovations saw a market opportunity given these values and launched the Caravan Reset Program this past summer for high-time aircraft (20,000 hours total time).

The “Reset” program includes a Metal Innovations Cessna 208 Special Inspection Document (SID) Reset STC along with the new 867-shp Blackhawk XP140 engine, the same PT6A-140 engine installed on the production Caravan EX model. The engine upgrade delivers a 28 percent increase in horsepower for takeoff, climb and cruise, while retaining the existing cowling, engine mount, and exhaust system. The upgrade includes a 325-amp starter generator that lowers start temperatures by 100 degrees F, a new Hartzell 106-inch propeller and Hawkeye DigiLog Engine gauges. This program will allow Cessna Caravan operators to reset their aircraft to like-new standards for a fraction of the cost of a new airplane, Blackhawk said.

Likewise, values of late model Quest Kodiaks are on the rise. A 2012 model increased in value from \$1.16 million to \$1.3 million. Values of Pilatus PC-12s, Piper Meridians and TBMs barely budged during the year. A 1997 PC-12 declined from \$1.7 to \$1.6 million, a 2012 from \$3.8 million to \$3.7 million; a 2007 Meridian dropped from \$1.075 million to \$950,000, a 2012 from \$1.5 million to \$1.35 million; while a 1997 TBM 700 fell from \$1.18 million to \$980,000, a 2007 Model 850 barely moved at all down to \$1.7 million, and a 2012 diminished from \$2.52 million to \$2.27 million.

Upgrades are available for many of these aircraft including the Advent eABS system and the IS&S avionics upgrade with autothrottle for the PC-12. The avionics upgrade



Quest Kodiak



includes new PFDs and MFD, dual SBAS GPS receivers and IS&S's integrated flight management system with LPV approach capability. Pilatus delivered its 1,500th PC-12 in June and used values for that aircraft and the Cessna Caravan could remain elevated in light of EASA's March ruling legalizing single-engine turboprop commercial operations in instrument meteorological conditions in Europe.

In October, Richard Koe of European aviation intelligence firm WingX noted that, while SET (single-engine turboprop) activity is "growing fast," so far only 7 percent is commercial/AOC, while the rest is private. The total turboprop single fleet currently numbers approximately 330 aircraft in Europe. The PC-12 being most active and fast growing, with flights up 92 percent compared with the same point last year. Overall the number of commercial SET flights has increased by 72 percent from a year ago, he added. Could the growth of European charter raise values of the U.S. preowned fleet as more are sold into Europe to meet demand for new low-cost service? It's not reflected in the pricing—yet. ■