



## Survey Rules and Methodology

As with AIN Publications' previous annual Product Support Surveys, the objective this year was to obtain from the users of business jets, pressurized turboprop airplanes, and turbine-powered helicopters statistically valid information about the product support provided by business aircraft manufacturers over the last year and to report this information to our readers. The goal is to encourage continuous improvement in aircraft product support throughout the industry.

This survey was conducted via a dedicated website, created by **AIN** from the ground up to provide improved ease of use and to encourage greater reader participation. **AIN** emailed qualified readers a link to the survey website and also sent a postcard invitation with login credentials to the survey website.

The survey website was open from May 1 to June 7. Respondents were asked to rate individual aircraft and provide the tail number, age (less than 10 years old or more than 10), primary region of service and whether they used factory-owned or authorized service centers, or both. Respondents were also asked to rate, on a scale from 1 to 10, the quality of service they received during the previous 12 months in the following categories:

- » **Factory-owned Service Centers**—cost estimates versus actual, on-time performance, scheduling ease, service experience.
- » **Authorized Service Centers**—same as above.
- » **Parts Availability**—in stock versus back order, shipping time.
- » **Cost of Parts**—value for price paid.
- » **AOG Response**—speed, accuracy, cost.
- » **Warranty Fulfillment**—ease of paperwork, extent of coverage.
- » **Technical Manuals**—ease of use, formats available, timeliness of updating.
- » **Technical Reps**—response time, knowledge, effectiveness.
- » **Overall Product Reliability**—how the product's reliability and quality stack up against the competition.

Respondents were also asked to recognize individuals who have provided them with exceptional product support and service.

The 2019 AIN Product Support Survey results for aircraft are published in this issue, avionics will be featured next month, and engines will follow in October.

# AIN Product Support Survey

## Dassault Falcon takes the top spot for jets, while Mitsubishi maintains that position among turboprops

In a tight race for the top spot in the 2019 AIN Product Support Survey, Dassault jumped ahead by a slim margin of 0.1 to score this year's highest Combined Overall Average of Newer and Older Aircraft of 8.4, based on results of **AIN**'s survey of business jet operators, pilots, and maintainers.

The 8.4 Overall Average rating for Dassault vaults the company to first place in 2019, up from last year's second place, moving Gulfstream's mid-cabin jets to

second place with an 8.3 overall average. Embraer and Gulfstream's large-cabin jets share third place with an 8.2, leaving a tight margin between the top-place finishers this year.

For this year's survey, there were 720 respondents who rated 2,220 aircraft, broken down into 151 models. The minimum number of respondents required to include an aircraft in the results is 20. (For more details, see *Survey Rules and Methodology*, at right.)

### DASSAULT

#### The Results

Dassault and its Falcon jet series have made a steady climb in the **AIN** Product Support Survey in recent years, achieving first place this year with an 8.4 Combined Overall Average of Newer and Older Aircraft; last year the company was in second place with an 8.3 and the year prior it held third place at 8.1.

Dassault also scored well in the Newer Business Jets segment, sharing first place with Gulfstream's mid-cabin jets with an 8.7 Overall Average. For Dassault, this was a 0.2 rise from last year, when it also secured first place in this category, tied then with Gulfstream's large-cabin jets at 8.5.

In this segment, Dassault's strongest ratings were Overall Aircraft Reliability at 9.1, AOG Response 9.0, Cost of Parts 7.4, and

Parts Availability 9.0. The latter two are significant because parts issues are among the most vexing for both aircraft operators and manufacturers, and strong scores in these are a positive indication.

For Older Business Jets, Dassault saw an improvement of 0.1, which put it in second place, up two levels from last year's fourth-place finish in this segment. None of the category ratings in this segment were highest for Dassault, but they



## ➤ DASSAULT continued

averaged high enough to earn the second-place ranking.

**The Improvements**

Dassault has grown its factory-owned service center network dramatically during the past year by purchasing independent MRO providers. The most recent was Ruag's MRO and FBO activities in Geneva and Lugano. In late February,

Dassault announced an agreement to buy TAG Aviation's European maintenance operations in Geneva and Sion, Switzerland, and Farnborough and Paris Le Bourget, as well as Lisbon. One month earlier, Luxaviation revealed that it would sell its ExecuJet MRO network to Dassault, which includes 15 MRO centers across Africa, Asia-Pacific, the Caribbean, Europe, Latin America, and the Middle East.

"The ExecuJet acquisition is mainly to

develop a footprint in Asia-Pacific," said Jean Kayanakis, Dassault Aviation senior v-p of worldwide customer service and service center network. He added that the TAG purchase was "to secure capacity in Europe.

"Dassault wants to be more involved in the customer experience in MRO," he explained. "Not only because of profitability but more because of customer experience and being responsible for the future of our customers."

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Category & Overall Average Ratings by Newer and Older Aircraft	Overall Average 2019	Overall Average 2018	Rating Change from 2018 to 2019	Factory Owned Service Centers	Authorized Service Centers	Parts Availability	Cost of Parts	AOG Response	Warranty Fulfillment	Technical Manuals	Technical Reps	Overall Aircraft Reliability
<b>Newer Business Jets</b>												
Dassault (Falcon)	<b>8.7</b>	<b>8.5</b>	0.2	7.9	8.4	<b>9.0</b>	<b>7.4</b>	<b>9.0</b>	9.1	8.7	9.2	<b>9.1</b>
Gulfstream (G150 -G280)	<b>8.7</b>	8.2	0.5	<b>8.3</b>	<b>8.8</b>	8.4	<b>7.4</b>	8.9	<b>9.4</b>	8.7	<b>9.4</b>	8.8
Gulfstream (G300-G650)	8.4	8.5	-0.1	8.2	8.1	8.7	6.5	8.9	8.9	8.1	8.9	8.9
Embraer (Phenom, Legacy, Lineage)	8.1	8.4	-0.3	7.0	8.0	7.8	7.1	7.9	8.3	<b>8.8</b>	9.1	8.8
Bombardier (Challenger)	8.0	8.1	-0.1	7.3	8.1	8.0	6.3	8.0	8.5	8.2	8.9	8.7
Bombardier (Global)	8.0	8.0	0.0	7.9	7.7	7.9	6.7	8.1	8.2	8.5	8.5	8.7
Textron Aviation (Citation)	7.8	8.0	-0.2	7.3	7.2	7.7	6.4	8.0	8.7	8.1	8.2	8.5
Bombardier (Learjet)	7.7	7.6	0.1	7.2	8.4	5.1	5.4	8.2	8.6	8.6	8.8	8.6
<b>Older Business Jets</b>												
Embraer (Phenom, Legacy, Lineage)	<b>8.5</b>	8.1	0.4	<b>7.7</b>	7.4	<b>8.5</b>	<b>7.7</b>	<b>8.6</b>	<b>9.0</b>	<b>8.9</b>	<b>9.3</b>	<b>9.2</b>
Dassault (Falcon)	7.9	7.8	0.1	6.6	7.9	8.3	6.9	8.5	7.3	8.0	8.7	8.7
Gulfstream (GII-GV)	7.8	<b>8.2</b>	-0.4	7.3	8.0	7.9	5.3	8.4	8.0	8.0	8.8	8.6
Gulfstream (G100 - G280)	7.7	NA	NA	7.3	8.2	7.6	6.1	8.1	7.9	8.0	8.4	8.2
Textron Aviation (Citation)	7.7	7.3	0.4	7.0	7.3	8.0	6.7	7.6	8.1	8.0	8.0	8.7
Bombardier (Global)	7.5	8.0	-0.5	7.1	7.8	7.6	5.9	7.4	7.4	8.0	8.0	8.6
Bombardier (Learjet)	7.3	7.8	-0.5	6.7	7.9	6.3	5.6	7.4	7.9	8.1	8.4	8.2
Bombardier (Challenger)	7.2	7.7	-0.5	6.4	7.1	7.5	6.4	7.6	6.6	7.5	7.8	7.9
Textron Aviation (Premier, Beechjet 400/400A, Hawker 400XP)	6.9	6.6	0.3	5.8	<b>8.9</b>	7.9	5.2	7.3	5.1	6.9	6.3	8.9
Textron Aviation (Hawker)	6.6	6.4	0.2	6.4	8.0	6.0	4.2	6.9	6.6	7.4	6.1	7.8
<b>Newer Turboprops</b>												
Pilatus (PC-12)	<b>8.0</b>	<b>8.2</b>	-0.2	<b>8.3</b>	<b>8.1</b>	8.1	6.4	<b>7.3</b>	<b>8.7</b>	<b>9.2</b>	7.7	<b>9.1</b>
Textron Aviation (King Air)	7.4	8.0	-0.6	6.2	6.7	<b>8.3</b>	<b>6.6</b>	7.1	7.7	7.7	<b>7.8</b>	8.6
<b>Older Turboprops</b>												
Mitsubishi (MU-2, Solitaire, Marquise)	<b>9.1</b>	<b>9.1</b>	0.0	<b>9.1</b>	<b>9.3</b>	<b>8.8</b>	<b>7.4</b>	<b>8.8</b>	<b>9.8</b>	<b>9.7</b>	<b>9.9</b>	<b>9.8</b>
Textron Aviation (King Air)	7.1	7.2	-0.1	5.7	6.6	7.6	5.6	7.4	6.1	7.8	7.7	8.7
<b>Rotorcraft (all age Rotorcraft)</b>												
Bell	<b>7.3</b>	<b>7.1</b>	0.2	<b>9.0</b>	7.2	<b>6.7</b>	<b>6.4</b>	<b>6.5</b>	7.5	<b>7.9</b>	<b>7.8</b>	7.6
Leonardo	6.8	6.9	-0.1	6.4	<b>7.4</b>	6.4	5.2	6.4	<b>7.7</b>	6.9	7.4	<b>7.8</b>
Airbus Helicopters	6.7	7.0	-0.3	6.4	6.6	6.1	5.3	5.9	7.0	7.2	7.4	7.6
Sikorsky	6.6	6.8	-0.2	6.3	7.1	5.4	5.4	6.1	6.6	7.4	7.5	7.2

Listed in order of 2019 overall average. Ties are listed alphabetically. Bolder indicates highest number in each category.



Combined Overall Average Ratings of Newer and Older Aircraft	Overall Average 2019	Overall Average 2018	Rating Change from 2018 to 2019
<b>Jets</b>			
Dassault (Falcon)	8.4	8.3	0.1
Gulfstream (G100 - G280)	8.3	8.2	0.1
Embraer (Phenom, Legacy, Lineage)	8.2	8.3	-0.1
Gulfstream (GII-GV, G300-G650)	8.2	8.4	-0.2
Bombardier (Global)	7.9	8.0	-0.1
Bombardier (Challenger)	7.8	8.0	-0.2
Textron Aviation (Citation)	7.8	7.7	0.1
Bombardier (Learjet)	7.5	7.7	-0.2
Textron Aviation (Premier, Beechjet 400/400A, Hawker 400XP)	7.0	6.7	0.3
Textron Aviation (Hawker)	6.4	6.7	-0.3
<b>Turboprops</b>			
Mitsubishi (MU-2, Solitaire, Marquise)	9.1	9.1	0.0
Pilatus (PC-12)	8.3	8.2	0.1
Textron Aviation (King Air)	7.3	7.4	-0.1
<b>Rotorcraft</b>			
Bell	7.3	7.1	0.2
Leonardo	6.8	6.9	-0.1
Airbus Helicopters	6.7	7.0	-0.3
Sikorsky	6.6	6.8	-0.2

\* Listed in order of the 2019 overall average. Ties are listed alphabetically. Bold indicates highest number in each category.



One reason for Dassault's improved customer-service performance is the OEM's investment in ensuring worldwide parts availability.

› DASSAULT continued

While the facilities that Dassault purchased are Falcon MRO centers, some also service other manufacturers' aircraft. Kayanakis confirmed that these facilities will continue working on all of the aircraft for which they hold approvals. "But we want to be significantly bigger to better control through our own network the customer experience," he said. "Ultimately this is [all about] customer experience."

In January, Dassault opened a new parts warehouse near Charles de Gaulle Airport, replacing the facility near Le Bourget and speeding up shipments worldwide. While making parts more available helps, Dassault is also trying to lower costs for Falcon operators. This includes reducing parts costs but also improving availability of the aircraft by deploying technical personnel closer to where the operator is based and backing them up with Falcon Airborne Support Falcon 900s.

Dassault has a new MRO footprint in Kuala Lumpur, which will help support a new operator in Vietnam. In Brazil, Dassault is keeping its MRO facility in Sorocaba open despite a challenging operating environment with high costs for importing parts and maintaining regulatory compliance. "It's worth being there," Kayanakis said. "We have a strong customer base." Dassault also employs three support personnel in Moscow to support Russia-based customers and visiting Falcons. "Our strategy is to have a worldwide network," he said.

Another key element for Dassault is training, and its Dassault Training Academy in Marignac, France, has already graduated 100 technicians in Europe, and training has started in Dallas.

For the next Falcon aircraft model program, the 6X, Dassault has tapped the expertise of its product support teams from early in the design process. The 6X will use the Falcon Broadcast data-sharing system to an even greater extent, adding artificial intelligence to analysts' efforts to put the extensive data gathered to work to anticipate the 6X's maintenance needs. "We're thinking ahead with artificial intelligence," Kayanakis said, "and how we could mix a different set of data to highlight critical situations."

Ultimately, support personnel at the three Dassault command centers (one in France and two in North America) wouldn't have to wait for a customer to call about a problem or download some data. "That is going to change," he said. "With the 6X, maybe we'll be able to tell the customer, 'don't touch your system anymore.' We can go into the system and do on a remote basis some analysis. This is the expectation."



## Above & Beyond

### OEMs

#### Mike Zina (Bombardier)

*Great FSR; one of the best in the business*

*Mike Zina is a tremendous resource for us, possesses great knowledge of the product that he represents, is outstanding in response & follow-up, and is generally just a very professional and pleasant guy to work with. Superior-caliber FSR for Bombardier. A+ support all around from Mike.*

#### Randy Adams (Textron Aviation)

*Our field rep Randy Adams has gone above and beyond to support the Citation X+. We have had many issues with this aircraft and Randy has always come through with support. On several occasions he has driven parts to us from Milwaukee to get us back in the air the next morning.*

#### Nathan Jones (Dassault)

*Nathan has a wide range of technical knowledge of the Falcon aircraft, but really stands out from the crowd for his aggressive response to customer needs. Nathan approaches every call or email with a sense of urgency and attention to detail that leaves me with a feeling of confidence that my problem will be resolved once I contact him.*

#### Renato Beltrao (Embraer)

*Renato is very knowledgeable and usually has a solution at hand when contacted, otherwise he will go out of his way to find an answer to any question(s) that I might have. Renato is also extremely reliable and will always return a call within a very short time should I not be able to get hold of him directly. The aircraft's reliability since delivery has been due to solid engineering and Renato's excellent support.*

*Always available 24-7 to answer any queries and problems, 100 percent committed to the Embraer product, a valued asset for Embraer.*

*The Best FSR I have had dealing with.*

*Since Renato has been dealing with our aircraft, although we only have three, he has always gone out of his way to support us no matter how small the issue is. He makes a point to phone me to find out how our fleet is doing and if we have any issues. As mentioned, we are only a drop in the bucket, but he still treats us the same as an operator that has 10 or more aircraft. Renato is always available and makes it his business to support us 24/7. Thank you for that.*

#### Dallas Gumm (Gulfstream)

*Outstanding support from Dallas Gumm, especially his technical knowledge of the Gulfstream large-cabin product line.*

*Dallas applies all his experience and knowledge to every issue he faces and gets all resources to find a solution.*

#### Juan Noles (Hawker)

*Juan is a customer-support oriented person. Knowledgeable, experienced in his field and always willing to help the customer find options/solutions.*

#### Raymond Steyn (Pilatus)

*Great product knowledge and excellent customer relations.*

#### Jim Agnew (Bell Helicopter)

*Every time we need info on a specific inquiry, he'll reply at once. If he cannot answer it, he will connect us to the correct person. He visits our hangar every month like clockwork.*

#### Carl Violette (Sikorsky)

*Always going above and beyond to ensure customer support.*

### Service Centers

#### Christian Szupper (Aero Dienst)

*Very knowledgeable, experienced and reliable technician.*

#### Rick Branch (Eagle Creek Aviation Services)

*Rick supports the customer from first introduction through purchase, delivery, and anything required for the life of the aircraft. He always works to ensure Eagle Creek exceeds the customer's expectations.*

#### John Arnett (Flightstar)

*John is DOM at Flightstar. He and his team always go above and beyond to get any job out on time and, most of all, on budget.*

#### Mr SUN, Ming Jun (Execujet Haite Aviation Services China Co. Ltd)

*Full-spectrum technical knowledge and experience of Global 5000/6000. Active and timely support of customer requests. Service straight from the heart. Deliver outcome to meet customer expectations. Aircraft back to service ON TIME*

#### Mark James (Intercontinental Jet Services)

*Mark always goes the extra mile to ensure quality and on-time work on our MU-2's. He oversees a group of very experienced and dedicated people at IJSC.*

*His can-do attitude and relationship with Mitsubishi will keep the MU-2 fleet flying for many years to come.*

### By the Numbers 2019

Respondents who rated aircraft	720
Respondents who completed the survey in its entirety	631
Aircraft rated	2220
Aircraft models receiving ratings	151
Minimum ratings required to be included in the data	20

## GULFSTREAM

### The Results

Gulfstream's mid-cabin jets earned a close second-place finish this year with an 8.3 Combined Overall Average of Newer and Older Aircraft rating (up 0.1 from last year), followed by its large-cabin jets in third place at 8.2 (shared with Embraer), down 0.2 from last year's first-place finish.

In the Newer Business Jets segment, Gulfstream took both first (shared with Dassault) and second place, with an 8.7 rating for mid-cabin jets and 8.4 for large-cabin jets. The mid-cabin first-place rating made a significant jump from last year's 8.2, and the categories where Gulfstream was rated at its best include a number of high scores, for Factory Owned Service Centers (8.3), Authorized Service Centers (8.8), Cost of Parts (7.4), Warranty Fulfillment (9.4), and Technical Reps (9.4). The large-cabin jets scored higher than the mid-cabin for Overall Average, at 8.9.

Gulfstream's large-cabin jets came in third place with a 7.8 in the Older Business Jets segment (not enough ratings were received for the mid-cabin jets in this segment), and this was down 0.4 from last year.

### The Improvements

Gulfstream has also made large investments in MRO facilities worldwide, with some openings scheduled

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› GULFSTREAM continued

for later this year and more in 2020.

In the U.S., the airframer will open new MRO facilities in Savannah, Georgia; Appleton, Wisconsin; and Van Nuys, California, in this year's third quarter. A 115,000-sq-ft MRO facility will replace a smaller operation elsewhere at Palm Beach International Airport in Florida, and this is scheduled to open in the first quarter of 2020. Gulfstream began providing MRO services at TAG Farnborough Airport in the UK in May, but is also building a dedicated facility. At 220,060 sq ft, the Farnborough location will open in the third quarter of 2020, complementing Gulfstream's MRO operation at London Luton Airport to the northeast.

Gulfstream expects the new Palm Beach service center to serve the more than 400 Gulfstreams based in Florida and Latin America. Earlier this year, Gulfstream announced that it is closing its Sorocaba, Brazil service center, but it is offsetting that closure not only with the Palm Beach facility

but also by expanding its Field and Airborne Support Teams (FAST) in the region and working with an authorized service provider in Brazil, in addition to its two field service representatives in Brazil and authorized service facilities in Venezuela and Mexico.

For Asia-Pacific operators, Gulfstream has added Shanghai Hawker Pacific as a Gulfstream-authorized warranty facility and added services and operating hours at the factory-owned Gulfstream Beijing service center.

In Europe, Gulfstream expanded MRO hangar space at Le Bourget Airport. And the company's MRO facility in St. Louis, Missouri, has transitioned into a dedicated Gulfstream MRO facility.

The company's MRO operations have added a net 120 direct full-time employees. For technician training, the Gulfstream On-The-Job Training Laboratory in the company's Technical Training Center in Savannah, Georgia, now has a G600 fuselage and wing and a G650 fuselage, wing, and interior, in addition to components from

other Gulfstream models.

Gulfstream has added new managing director positions to work with customers in various regions and to coordinate support between Gulfstream, its sister company Jet Aviation, and Jet Aviation subsidiary Hawker Pacific, which it purchased in May 2018.

Gulfstream opened a new resource at its Savannah service center called the Maintenance Center in February, which "offers internal and external customers a single point of contact for scheduling maintenance within the worldwide Gulfstream service center network," according to Gulfstream. A team of experts from scheduling, planning, materials, and service center operations helps manage drop-in customers and with coordinating maintenance. "This team makes data-driven decisions based on service center capacity, resource availability, and site capability" all with the goal of reducing downtime, according to Gulfstream.



**ROTORCRAFT**

**The Results**

Bell climbed 0.2 this year in the Combined Overall Average to 7.3, retaining its first-place finish in the rotorcraft segment. This year, Leonardo, while dropping 0.1, climbed to a second-place ranking, up from third last year. Airbus Helicopters scored 6.7, down from 7.0 last year and putting it in third place, followed by Sikorsky with a 6.6, down 0.2 from last year's 6.8.

**EMBRAER**

**The Results**

Embraer tied for third place (with Gulfstream mid-cabins) this year with an 8.2 Combined Overall Average of Newer and Older Aircraft, down 0.1 from last year's second-place rating. In the Newer Business Jets segment, Embraer's 8.1 Overall Average dropped from 8.4 last year, putting it in third place. Its highest category score was an 8.8 for technical manuals.

In the Older Business Jets segment, Embraer topped the list with a first-place Overall Average of 8.5, up 0.4 from last year. The company scored high marks in almost every category: Factory Owned Service Centers (7.7), Parts Availability (8.5), Cost of Parts (7.7), AOG Response (8.6), Warranty Fulfillment (9.0), Technical Manuals (8.9), Technical Reps (9.3), and Overall Aircraft Reliability (9.2).

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**BOMBARDIER****The Results**

Both Bombardier's Globals and Challengers took the next two slots in the Combined Overall Average Ratings of Newer and Older Aircraft, with a rating of 7.9 for the Globals (fourth place) and 7.8 for the Challengers (fifth place, tied with Textron Aviation's Citations). The company's Learjet division was rated at 7.5, which put it in sixth place.

In the Newer Business Jets segment, Globals and Challengers share fourth place with an 8.0 rating, with Learjet rated at 7.6 and sixth place. For the Older Business Jets, the Globals scored a 7.5 rating (fifth place), Learjets 7.3 (sixth), and Challengers 7.2 (seventh).

**The Improvements**

Bombardier's worldwide service network is expanding and now includes nine factory-owned facilities. A new Bombardier Service Center is under construction at Florida's Miami-Opa Locka Executive Airport, to serve U.S. and Latin America-based customers.

In Singapore, the company's Service Centre is growing to 400,000 sq ft from the current 100,000 sq ft. Since it was opened four years ago, the workforce has quadrupled.

Bombardier has opened eight line-maintenance stations worldwide, with the most recent in Paris and Tianjin, China. Engine manufacturers Rolls-Royce, GE, and Honeywell recently granted authorized service center status to the Tianjin facility. Jetex joined the Bombardier authorized service center network and launched a new line maintenance station in Dubai. At its Biggin Hill Service Centre, Bombardier has opened an enhanced interior repair and refurb shop and F/List and Bombardier are jointly opening a new 3,000-sq-ft interior shop at that facility.

Five more trucks have joined Bombardier's Mobile Response Team (MRT), and the total has reached 30. The flying MRT fleet consists of two jets, with a Challenger 300 based in Frankfurt, Germany, joining the Learjet 45 based in North America.

› EMBRAER continued

**The Improvements**

Some big changes are in store for Embraer, which is selling its commercial airliner business to Boeing; the deal is expected to close by the end of this year. That leaves a smaller company that will include the defense, business jet, agricultural, and service operations, and the Embraer-X research lab. Business jet completions will be done at Embraer's Melbourne, Florida facility, while production of the Legacy 450/500 and Praetor 500/600 will move to Gavião Peixoto. Structural components will still be made in Brazil.

Embraer's support network includes more than 80 authorized and factory-owned service centers,

including its own facility in Sorocaba, Brazil, where earlier this year it refurbished a Legacy 600 with a new interior, systems upgrades, and new paint plus landing gear overhaul and installation of ADS-B Out. The company has 24 warehouses globally that ensure fast delivery of parts.

For quick access to information on parts orders, engineering and technical documents, warranty, Embraer Executive Care program coverage, service information, and a customer forum, Embraer has developed the FlyEmbraer web portal.

The Embraer TechCare Center operates 24/7 and provides direct contact with qualified Embraer Technicians for swift problem resolution, all aimed at keeping the customer's aircraft flying.

**TEXTRON AVIATION****The Results**

Textron Aviation's Combined Overall Average for Newer and Older Aircraft for its Citation line climbed 0.1 to 7.8 this year, putting it in fifth place along with Bombardier Challengers and the same placement as last year.

In the Newer Business Jets segment, **AIN** readers rated Citations at 7.8, down 0.2 from last year, and fifth place.

In the Older Business Jets segment, Citations were rated 7.7 and fourth place, a significant 0.4 jump from last year's sixth place. The company's Premier, Beechjet 400/400A, and Hawker 400XP models were rated 6.9, up by 0.3 from last year. The Hawker line earned a 6.6 Overall Average, up 0.2 from last year.

On the turboprop side, Textron Aviation's King Air family came in third place in the Combined Overall Average with a 7.3, down 0.1 from last year. King Airs received second place in both the Newer and Older Turboprops segments, at 7.4 and 7.1 respectively. Top ratings for the King Airs include Parts Availability (8.3), Cost of Parts (6.6), and Technical Reps (7.8).

**The Improvements**

"Over the past year, the company has primarily focused on improving speed to resolution, duration of work, cost competitiveness, and access to quality service around the world," according to Textron Aviation.

Expansions to Textron Aviation's Global Service Network include the new Textron Aviation Canada, which was formed after it purchased assets of Calgary, Canada-based Aspect Aircraft Maintenance. The company also placed a mobile service unit (MSU) in Toronto, complementing one already located at the former Aspect facility. The Textron Aviation global MSU fleet now numbers 75.

At Biggin Hill in the London area, Textron Aviation opened a new line maintenance station for Citation, King Air, and Hawker customers. The factory-owned Singapore Service Center has added

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## PILATUS

### The Results

Pilatus retains its second place ranking in the Combined Overall Average of Newer and Older Aircraft in the turboprops segment, climbing 0.1 this year to 8.3. In the Newer Turboprops segment, its rating dropped to 8.0 from 8.2 last year, but still holding its first place ranking.

Pilatus's top scores from **AIN** readers were for Factory Owned Service Centers (8.3), Authorized Service Centers (8.1), AOG Response (7.3), Warranty Fulfillment (8.7), Technical Manuals (9.2), and Overall Aircraft Reliability (9.1).

### The Improvements

Last year, Pilatus's U.S. operation moved into a new 118,000-sq-ft

completions facility in Broomfield, Colorado, consolidating its numerous separate hangars and buildings at the airport into one modern new building. At Broomfield, Pilatus launched a new Electrical/Avionics Maintenance Training course for its service center technicians.

Both Pilatus's Stans, Switzerland headquarters and Broomfield facility house new 24/7/365 Customer Command Centers. The company has also added personnel to its global customer support team. The PC-12 fleet has flown more than 7.5 million flying hours and deliveries have surpassed 1,650.

## MITSUBISHI

### The Results

The MU-2 marque continues its domination of the turboprops in the Combined Overall Average for Newer and Older Aircraft and in the Older Turboprops segments, with a 9.1 for both. MU-2 owners and operators are a passionate and dedicated group, and this has long been reflected in the high-performance twin-turboprop's Product Support Survey Ratings, even though the airplane has long been out of production.

**AIN** readers gave top ratings for the MU-2 models in every category, with the highest for Authorized Service Centers (9.3), Warranty Fulfillment (9.8), Technical Manuals (9.7), Technical Reps (9.9), and Overall Aircraft Reliability (9.8).

### The Improvements

Since production ended in 1986, Mitsubishi Heavy Industries

America (MHIA) has continued to provide full factory support for the MU-2. The company maintains its Aircraft Product Support division in Addison, Texas.

A major factor in keeping the MU-2 community informed and flying safely is the company's Pilot's Review of Proficiency (PROP) program. The next PROP is scheduled for fall 2020, and attendance, as always, is free. MHIA also holds community events, such as the MU-2 Fly-In in July hosted by Jet Air Group in Green Bay, Wisconsin.

MHIA is working on localizing spare parts manufacturing in the U.S. and consolidating regulatory oversight to help sustain the MU-2 fleet. "These efforts should further the progress of both the parts supply chain and FAA coordination into the future," according to MHIA.

› Textron Aviation continued

authorizations for select Citation, King Air, and Caravan models in Indonesia, the Philippines, Vietnam, Papua New Guinea and the U.S. In Australia, Premier Aviation Maintenance joined the Authorized Service Facility network, with maintenance services offered for the full line of Textron Aviation models.

Textron Aviation's Able Aerospace subsidiary is capable of more than rotorcraft component services and is providing additional "resourceful component repair, overhaul, and approved replacement parts solutions," for fixed-wing aircraft, according to Textron Aviation.

Customers can now access a new customer portal feature, the Aircraft Maintenance Data Hub, which shows a summary of upcoming or overdue maintenance for aircraft subscribed to a Textron Aviation-Recommended maintenance tracking provider.

At Textron Aviation's Düsseldorf, Germany, European Distribution Center, available part numbers have grown to nearly 35,000 for European customers, thanks to a doubling of the size of the center.

The company has added new resources to its 1Call support organization, including Go Teams at factory-owned service centers for rapid dispatch to handle customer issues quickly. The field service team has grown, with seven new representatives added globally.

To help customers get back in the air faster, Textron Aviation formed a task force to evaluate the duration of scheduled work in an effort to lower the standard downtime. Based on customer feedback, the company has been evaluating parts prices and lowered prices on 20 percent of commonly ordered Textron Aviation proprietary parts. Flat rate hours for CJ3 inspection documents have also been lowered.



**AIN would like to thank MYGOFLIGHT for offering each survey respondent a 25% discount at MYGOFLIGHT.com.**

**AIN also raffled off two flight bags donated by MYGOFLIGHT. The winners were:**

Name	Title
Tim Kitzmann	Director of Maintenance
James Grasmeyer	Director of Maintenance