



AIN Product Support Survey

Garmin and Gogo receive top ratings from AIN readers

In AIN's 2020 Product Support Survey, readers again gave Garmin the top rating in the Overall Average for Flight Deck Avionics support, but last year's second-place finishers are closing the gap. Garmin's rating this year was 8.4, a 0.1 drop from 2019, with Universal Avionics now in a close second place at 8.3, followed by Collins Aerospace at 8.1. Both Universal and Collins are up from 7.9 last year. Honeywell saw a 0.1 improvement from last year to 7.9, with its BendixKing division down 0.1 to 7.8.

In the Cabin Electronics segment, Gogo Business Aviation matched first-place with Satcom Direct, both with an Overall Average of 8.5. Gogo climbed 0.2 points this year, while Satcom Direct added 0.1. Gulfstream's rating for its Cabin Management product line saw a significant 0.4 jump this year to 8.3 and second place, followed by Honeywell also with a strong 0.3 rise to 8.1 and third place. Collins Aerospace retained the same 7.8 rating as last year, while Lufthansa Technik saw a 0.2 drop to 7.2.

FLIGHT DECK AVIONICS

GARMIN

The Results

Garmin, with an 8.4 Overall Average, rated highest in Overall Product Reliability (9.0) as well top ratings for Warranty Fulfillment and Parts Availability (both 8.7).

The Improvements

During the past year, Garmin's product support team has implemented new projects to continue improving the product and service experience for Garmin customers, according to Lee Moore, director of avionics product support. "These projects are designed to optimize the speed and efficiency of our customer service capabilities from end-to-end and to continue leveraging customer relationships to drive continuous improvements into our products and services," he commented.

One of the most significant changes was the move into Garmin's new \$100 million operations buildings next to company headquarters in Olathe, Kansas. The new facility houses Garmin's manufacturing and distribution centers.

As part of the upgrade to the distribution center, Garmin incorporated more automation to improve efficiency and accuracy of order fulfillment, speed up turnaround times, and enhance customer communication. This eliminates "the need to call us on an order, a repair,

or an exchange," Moore explained.

Another project was a new Returns Center of Excellence, designed to help customers get faster service from Garmin's technical experts by freeing them up to spend more time troubleshooting and helping customers. Certain customers can also now work directly with Garmin to facilitate troubleshooting, exchanges, repairs, and minor modifications under Garmin's Services Training and Resources (STAR) program. STAR is available for small and medium-sized fleet owners.

To help customers manage their operating costs, Garmin now offers a cost-of-operations program for forward-fit business aircraft applications. The program is designed "to help customers reduce or eliminate potential variability in the cost of operating Garmin equipment throughout its service life," Moore said.

For pilots and technicians unable to travel for training at Garmin headquarters, the company has expanded distance-learning, adding six original e-learning courses, new videos, and more than 100 webinars. Many are available for free on Garmin's YouTube channel. Pilots can also try out some new avionics using Garmin's iPad apps, including the most recent new navigator series (GNX 375, GNC 355/355A, and GPS 175).

Survey Rules and Methodology

As with AIN's 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 flight deck avionics and cabin electronics manufacturers over the last year and to report this information to our readers. The goal is to encourage continuous improvement in avionics 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.

The survey website was open from May 4 to June 17. Respondents were asked to rate the avionics products they use. 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:

- » 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 2020 AIN Product Support Survey results for avionics are published in this issue. The results for aircraft appeared in the August issue, and engines will be featured next month. ■

UNIVERSAL AVIONICS

The Results

Universal Avionics scored second place in Overall Average with 8.3 and received high ratings in three categories, including AOG Response and Technical Manuals (both 8.6) and Technical Reps (8.7).

The Improvements

Universal Avionics promoted Robert Clare to a new position as director of customer services. Formerly director of sales, Clare is responsible for all aspects of customer services, including executing support requirements, resolving issues, developing growth strategies, and implementing process improvements to enhance the overall customer experience, according to Universal.

As a member of the Elbit family, Universal Avionics and Elbit field service engineers have cross trained on both companies' products, and this is designed to expand regional availability and capabilities, according to Universal Avionics.

At the repair station level, repair technicians have been cross-trained to maximize repair station coverage and improve turnaround times. These have since improved to four to seven days, down from seven to 10 days.



2020 Average Ratings of Flight Deck Avionics and Cabin Electronics

Table with 11 columns: Company, 2020 Overall Average, 2019 Overall Average, Ratings Change from 2019 to 2020, Parts Availability, Cost of Parts, AOG Response, Warranty Fulfillment, Technical Manuals, Technical Reps, Overall Product Reliability. Rows include Flight Deck Avionics (Garmin, Universal Avionics, Collins Aerospace, Honeywell, BendixKing by Honeywell) and Cabin Electronics (Gogo Business Aviation, Satcom Direct, Gulfstream Cabin Management, Honeywell, Collins Aerospace, Lufthansa Technik).

*Companies listed in order of their 2020 overall average. Ties are listed alphabetically. Bold indicated highest number in each category.

COLLINS AEROSPACE

The Results

Collins Aerospace placed third in the Overall Average for Flight Deck Avionics with a rating of 8.1. In the Cabin Electronics segment, the company scored a 7.8 rating, matching its fourth-place performance from last year.

The Improvements

Collins Aerospace adapted quickly to manage product support during the pandemic. "During these difficult days for our customers and partners, it's more important than ever to deliver extraordinary customer support," Craig Bries, v-p and general manager, avionics service and support for Collins Aerospace, told AIN.

Recent efforts included deploying technology so that Collins employees could be effective in working remotely to continue providing 24/7 technical support, repair support, and spares availability, he explained. Where necessary and possible, on site customer support is available by complying with local government regulations. Virtual

support is also available when on site visits are not possible, and these efforts were part of Collins's flexible field support travel policies.

To support aircraft operators, Collins worked with aircraft manufacturers on cleaning guidance for avionics and cabin equipment. At the same time, Collins was able to keep its MRO facilities open and complete repairs on customer units by establishing strict procedures for ensuring employee health.

In one example of how Collins has adapted to the restrictions created by the pandemic, the support team deployed a graphical user interface preview tool so customers can participate in testing of new Venue cabin management/entertainment system installations, without the need for in-person visits to Collins facilities or to the dealer/installer.

"Despite the many challenges we face in 2020," Bries concluded, "customers can continue to expect Collins Aerospace to deliver quality products on-schedule and provide timely and effortless problem resolution."

HONEYWELL AND HONEYWELL BENDIXKING

The Results

Honeywell saw a 0.1 point improvement over last year's Flight Deck Avionics rating, putting it in fourth place, followed closely by its BendixKing division at 7.8. The Honeywell BendixKing unit saw its highest category score in Cost of Parts (7.7).

In the Cabin Electronics segment, Honeywell ranked third place, with a solid 0.3 jump to an Overall Average of 8.1.

The Improvements

Honeywell has spent the last year refining its product design, usability, and how it services its products, according to Todd Owens, who leads the group's electrical and mechanical product support for the Americas.

With limited availability to travel, Honeywell has shifted to online interaction with customers, via webinars, virtual classrooms, and with self-serve delivery of information on the Honeywell aerospace portal, which contains more than 10,000 technical knowledge publications and many training videos that are free to access.

"We've had positive feedback from our steering committees, channel partners, and customer advisory boards," Owens said. "When offering a new product or making an improvement, we look at how we can create a video instead of a 100-page manual."

Honeywell is also employing video conferencing to meet with customers remotely during the pandemic, as well as webinars that expand access to customers all over the world.

"The goal is to say, 'how can we use this as an improvement [in helping customers],'" said Megan Towne, Honeywell's director of customer and product support for the Americas for business/general aviation. "This is not to replace face-to-face, but to augment it. With so many operators, we can't [physically] get to every one of them. We found this

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Above & Beyond: Reader Comments

Joe Megna (Garmin)

Joe has been there for us for many years. He always picks up his phone on the first ring and works hard to come up with elegant solutions to some of our most difficult problems. If we could have a complete Garmin cockpit, we would because of Joe. He is a rare diamond in the rough when it comes to avionics support. Our operations would suffer without his number in our address book!

John Dano (Honeywell)

John has supported operators with some difficult avionics problems over the years. He has been a proactive focal point to raise issues within Honeywell when needed and also to communicate to the operators as needed. No problem is too big or too small; he helps with his extensive knowledge or knows where to get it. Definitely the type of person you like dealing with on technical issues in the avionics world.

Lee A. Kirchhofer (Honeywell)

He turned around the relationship between the operator/customer and Honeywell. He restored confidence in Honeywell by giving the operator assistance and even incentives as well as information. A person that was truly committed to both his employer (Honeywell) and his customer (operator). I'm certain that he saved money—and headaches—to Honeywell. I know he did for us (the operator). Win-win situation. If only there were more people like him. Kudos! He is now retired, but he deserves a ceremony.

Tom Kuchno (Satcom Direct)

Tom has been a vital part of our operation and is always available when we need support. Tom has a wealth of experience and knowledge and is available at a moment's notice when we need support. Thank you Tom.



> Honeywell and Honeywell BendixKing continued



to be a really effective means to get a more personal touch. We'll return to face-to-face where it makes sense, but we do plan to standardize some of the video for operators."

As well, Honeywell sees the benefit of remote interaction even without the pandemic keeping people distanced. "It allows me to save time," she explained, "and allows interaction at my [and the customer's] convenience." This doesn't just apply to end-user customers but also Honeywell dealers, installers, and technicians.

In mid-August, Honeywell launched a new section on its portal that allows customers more participation in design improvements. The new "product improvement" or "service revealed" section addresses design improvements, especially those that customers have requested, and allows them to see the status of the change and when Honeywell expects it to become available. "We'll be more transparent with improvements," Owens said. "Historically we got feedback that we're not as transparent as we should be.

"We've learned from this experience, through the crisis," he said. "This has allowed Honeywell to partner more efficiently with its other business units." For example, the Safety and Performance division developed personal protective equipment, including safety packs for business aviation.

For the BendixKing division, Roger Dykmann, director of offering management for the BendixKing team, has also focused on serving customers and technicians remotely. "We've been forced to think differently," he said, "and now we go to the airplane with our phone in hand with video. This is a shifting support model, and it's going to evolve in a good way. We're delivering real-time support in a way that people will accept."

BendixKing continues its relationship with avionics manufacturer Avidyne, by providing support for Avidyne products that BendixKing sells. Dykmann sees this relationship growing stronger, especially as BendixKing has stronger international capability to support those products. "It's a great partnership," he said.

While the pandemic has affected product development, he added, "We continue to invest in current and new products."

CABIN ELECTRONICS

GOGO BUSINESS AVIATION

The Results

Gogo Business Aviation received an Overall Average of 8.5, climbing 0.2 this year for a first-place tie with Satcom Direct. Gogo made a strong showing in three categories this year, with top ratings for Parts Availability (8.7), Cost of Parts (7.6), and Technical Manuals (8.4).

The Improvements

Gogo remains the sole air-to-ground airborne connectivity provider in the U.S. and manufactures all of its onboard hardware and operates its network. "Because we operate and manage our systems end to end, we can monitor and analyze the performance, and the security, of our network and onboard systems, and quickly deploy corrections when and where needed," the company stated.

Next year, Gogo plans to implement its new 5G

service, which will require new onboard hardware and antennas, but these will fit in the same footprint and with the same mounting scheme, so no modifications will be needed.

In 2018, Gogo launched its Dash app and portal, which gives customers device-level access to their Gogo system and helps speed up problem resolution. Dash will work with the new 5G service. Using Dash, Gogo Avance or classic air-to-ground customers can also check network availability, system health status, and availability of services such as Gogo Vision or Gogo Text & Talk through an app or the Dash web portal.

This year, Gogo launched a new, lower service level so customers can now access Gogo from 3,000 feet instead of 10,000 feet in most areas of Gogo coverage, which includes the U.S., large areas of Canada, part of the Gulf of Mexico, and a large swath of Alaska.

SATCOM DIRECT

The Results

Satcom Direct's Overall Average of 8.5 gave it a first-place tie with Gogo. Satcom Direct also scored highest in AOG Response (9.4), Technical Reps (9.1), and Overall Product Reliability (8.5).

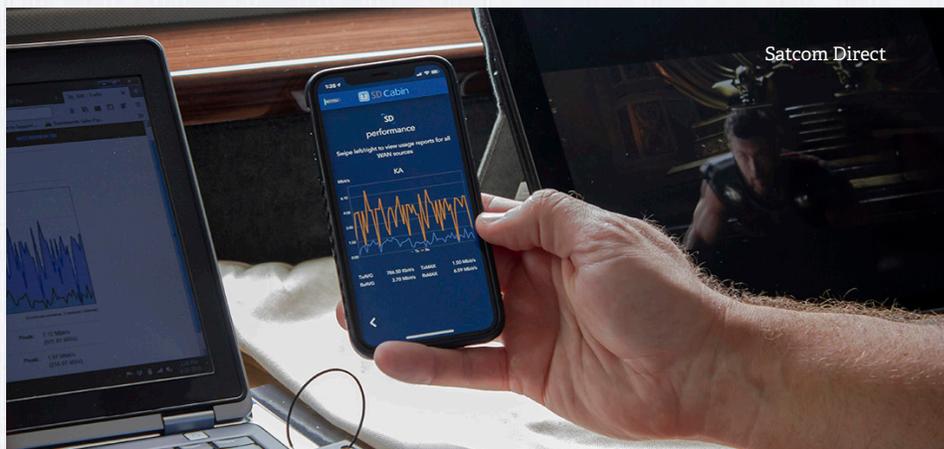
The Improvements

The Satcom Direct (SD) support team has developed tools with internet of things (IoT) and machine learning technology to analyze the high volume of data generated by customer aircraft for which it is the airborne connectivity service provider. These tools "provide SD with the insights to proactively identify issues and resolve them, often times in flight," the company said. "We started with very binary monitoring methods, but with heavy investments in artificial intelligence tools we are now able to layer our data to efficiently detect even the slightest degradations."

Although SD began investing in its lab environment

well before the coronavirus pandemic, the timing has helped the company ensure high levels of service while employees and customers work remotely. The lab resources are now fully available to remote employees, including support personnel, sales team members, and entry into service teams. The latter can now provide demonstrations and training without needing access to the aircraft or having to run the aircraft's electrical system using an APU or ground-power cart.

The SD Private Network (SDPN) has become an important tool for customers that need the highest levels of security. Rather than choosing high speeds and less security or vice versa, SD customers can enjoy the highest network speeds available and full securing with the SDPN. According to SD, "Using the data insights we have while working closely with corporate IT departments, we are able to build custom solutions to fit your mission using SD's backbone and SD Data Center infrastructure."



Satcom Direct