

# AIN Product Support Survey

by Jerry Siebenmark

Garmin is once again the Overall Average leader in the Flight Deck Avionics segment in AIN's 2021 Product Support Survey, with readers giving the Olathe, Kansas-based avionics manufacturer a rating of 8.6, followed closely by second-place finisher Collins Aerospace's rating of 8.3 and Honeywell's 8.1 rating. Universal's 8.2 rating, a 0.1 decrease from last year, is broken out separately as the number of responses fell just below our threshold for comparison with the other OEMs.

In the Cabin Management Systems (CMS) segment, Honeywell led with an Overall Average rating of 8.3, with a tie for second place between Collins and Gulfstream Cabin Management, each of which received an Overall Average rating of 7.9—a 0.1 increase for Collins but a 0.4 decline for Gulfstream. New to this year's

CMS listing is Cessna/Beechcraft Cabin Management, which earned a 7.8 Overall Average for a third-place finish, ahead of Lufthansa Technik at a rating of 7.4.

In the new Airborne Connectivity segment, Gogo Business Aviation was the top finisher with an Overall Average of 8.5, on par with AIN readers' rating of the Broomfield, Colorado-based company last year in the Cabin Electronics segment. Honeywell was just behind at 8.3, a 0.2 gain from last year. Satcom Direct finished third with an Overall Average rating of 8.2, which was 0.3 lower than in the 2020 survey. Collins received an 8.3 rating, up from 7.8 a year ago but with a smaller number of respondents preventing direct comparison with the other OEMs.



## Garmin

### The Results

In addition to recording the highest Overall Average for Flight Deck Avionics with an 8.6 rating, Garmin received top ratings in every category: Cost per Hour Programs (8.6), Parts Availability (8.6), Cost of Parts (7.6), AOG Response (8.5), Warranty Fulfillment (8.9), Technical Manuals (8.5), Technical Reps (8.5), and Overall Avionics Reliability (9.0).

### The Improvements

Lee Moore, Garmin's director of avionics product support, said in the past year the company has expanded its product self-service support with more video and FAQ (frequently asked questions) content for those customers who prefer self-help to phone or email support. Garmin also added staff to both its customer support and distributor support teams to increase coverage during peak demand hours, while at the same time offering more internal training options for technicians.

Additionally, Garmin expanded its operating hours into the weekends to better serve pilots.

In terms of fulfilling Garmin's commitment to continuous improvement and innovation in its products and services, the company has continued refining and growing its field quality reporting process through automation, thereby expediting the flow of feedback directly from owner/operators, service centers, and installers to the correct design and manufacturing engineering teams. As a result of restrictions caused by Covid-19, Garmin shifted its focus slightly from providing in-person training to expanding its virtual training offerings with more content added to its eLearning library and hosting quarterly webinar sessions for installers and pilots.

"Garmin maintains an immersive culture of continuous improvement, innovation, and customer-first focus," Moore said. "As such, we are always working on enhancements to our products, services, and support."

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## Survey Rules and Methodology

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

### NEW SURVEY PLATFORM

This year, the survey was conducted via a newly designed questionnaire, developed in partnership with Rolland Vincent Associates, a Texas-based consultancy focused on aviation market research, strategy, and forecasting. The redesigned survey was created to provide improved ease of use and to encourage more participants to complete the entire survey. The new survey tool:

- » Included Spanish and Portuguese versions for the first time.
- » Asked respondents to evaluate one full aircraft at a time including airframe, engines, and avionics.
- » Included clearer language and imagery around the individual categories and the evaluation scale.
- » Allowed user to specify Integrated Flight Deck Avionics, Stand-alone Flight Deck Avionics, Cabin Management Systems, and Airborne Connectivity.
- » Added a new category for Cost per Hour Programs.

### METHODOLOGY

AIN emailed qualified readers a link to the password-protected survey website. The survey website was open from May 3 to June 11. 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:

- » Cost per Hour Programs—Value for price paid, completeness of coverage, response time, quality of service, communication effectiveness, transferability of coverage, perception of residual value effect
- » Parts Availability—In stock vs. backlog, reasonable shipping time, parts available
- » Cost of Parts—Value for price paid when outside of warranty or cost-per-hour program
- » AOG Response—OEM speed of response, accuracy, cost, communication
- » Warranty Fulfillment—Ease of paperwork, extent of coverage
- » Technical Manuals—Ease of use, formats available, digital access, timely updating
- » Technical Reps—Response time, knowledge, effectiveness
- » Overall Product Reliability—Satisfaction with reliability over last 12 months for this aircraft model

### THE RESULTS

In total we recorded 1,450 avionics system evaluations. Rolland Vincent Associates reviewed the data to ensure accurate and valid responses. They also compiled the final survey results in close coordination with AIN.

In consultation with Rolland Vincent Associates we decided to separate Cabin Management Systems from Airborne Connectivity. In prior years these two were grouped together in a single table.

Respondents were also asked to recognize individuals who have provided them with exceptional product support and service. Select individuals are highlighted in this report.

### COMING NEXT

The 2021 AIN Product Support Survey results will conclude with the publishing of results for turbine engine manufacturers in the October issue. ■




Category & Overall Average Ratings for Avionics, Cabin Management Systems, and Airborne Connectivity	Overall Average 2021	Overall Average 2020	Rating Change from 2020 to 2021	Cost per Hour Programs	Parts Availability	Cost of Parts	AOG Response	Warranty Fulfillment	Technical Manuals	Technical Reps	Overall Avionics Reliability
<b>Flight Deck Avionics</b>											
Garmin	<b>8.6</b>	<b>8.4</b>	0.2	<b>8.6</b>	<b>8.6</b>	<b>7.6</b>	<b>8.5</b>	<b>8.9</b>	<b>8.5</b>	<b>8.5</b>	<b>9.0</b>
Collins Aerospace	8.3	8.1	0.2	8.2	8.4	7.3	8.3	8.8	8.3	8.3	8.8
Honeywell	8.1	7.9	0.2	8.1	8.1	7.1	8.2	8.6	8.1	8.2	8.5
Universal Avionics**	8.2	8.3	(0.1)	8.4	8.4	7.1	8.3	8.4	8.4	8.5	8.0
<b>Cabin Management Systems</b>											
Honeywell	<b>8.3</b>	8.1*	0.2	<b>8.3</b>	<b>8.2</b>	<b>7.6</b>	<b>8.4</b>	<b>8.9</b>	<b>8.4</b>	<b>8.5</b>	<b>8.5</b>
Collins Aerospace	7.9	7.8*	0.1	<b>8.3</b>	8.0	6.9	8.0	8.4	7.6	8.2	8.2
Gulfstream Cabin Management	7.9	<b>8.3</b>	(0.4)	7.9	7.7	6.5	8.1	8.5	8.1	8.3	7.9
Cessna / Beechcraft Cabin Management	7.8	NA	NA	7.7	7.6	6.6	8.0	8.1	8.0	8.0	8.0
Lufthansa Technik	7.4	7.2	0.2	8.0	7.8	6.3	7.3	7.8	6.9	7.5	7.5
<b>Airborne Connectivity</b>											
Gogo Business Aviation	<b>8.5</b>	<b>8.5</b>	-	7.9	<b>8.7</b>	<b>7.7</b>	<b>8.7</b>	<b>8.8</b>	<b>8.2</b>	<b>8.9</b>	<b>8.6</b>
Honeywell	8.3	8.1*	0.2	<b>8.6</b>	8.3	7.6	8.3	8.6	8.0	8.4	8.5
Satcom Direct	8.2	<b>8.5</b>	(0.3)	7.5	8.2	7.1	8.5	8.4	8.1	8.8	8.4
Collins Aerospace**	8.3	7.8*	0.5	8.0	8.2	7.4	8.2	8.5	8.4	8.7	8.7

\*2020 overall average included scores for both Cabin Management Systems and Airborne Connectivity.  
 \*\*Total responses just below our threshold for direct comparison with other OEM; ratings not included in the bolded high scores.  
 Ties listed alphabetically (except for low-response companies).

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**Honeywell**

**The Results**

Honeywell was one of two OEMs whose support was rated by **AIN** readers in all three segments of this year's Product Support Survey. It was the top finisher in the CMS segment with an Overall Average rating of 8.3 while grabbing second in Airborne Connectivity Overall Average (8.3) and third in Flight Deck Avionics Overall Average (8.1). In all three segments Honeywell improved its Overall Average ratings by 0.2. Its strongest showing by categories was in CMS, where it recorded ratings of 8.3 for Cost per Hour Programs, 8.2 for Parts Availability, 7.6 for Cost of Parts, 8.4 for AOG Response, 8.9 for Warranty Fulfillment, 8.4 for Technical Manuals, 8.5 for Technical Reps, and 8.5 for Overall Avionics Reliability.

**The Improvements**

If there was an upside to the global pandemic for Honeywell Aerospace in the past 12 months, it was a tem-

porary shift to a more virtual environment. "Some really good things came out of that," said Todd Owens, v-p of customer support. "We stepped back and we looked at what was working well and what, just due to the environment changing on us, did we learn from that and what do we take forward as just business as usual now."

At the beginning of this year Honeywell Inc. CEO Darius Adamczyk kicked off a "customer centricity" initiative to look at everything the company does from a customer viewpoint. That has led to an examination of all processes such as order management, AOG order fulfillment, and its customer-facing portal to determine if those are customer centric. "It's a very eye-opening experience we're going through," Owens said, "because in a lot of cases a lot of the ways we have traditionally done business is not customer-centric. So, this has been a great exercise." As a result, the company is laying plans to enhance its self-serve portal that will allow customers to see every service bulletin that's connected to a Honeywell product on their aircraft

and how resolving it would affect measures such as reliability and cost of ownership.

In the past year, Honeywell has also created a support hub in Phoenix where it has merged its technical support teams—such as global field service engineering, AOG, and connectivity.

"What we've done is simplified the customer experience," Owens said. "Instead of going to the portal and trying to figure out which product do I need, do I call Atlanta, do I call Phoenix? Now it's just one-stop shopping for any support need. So if a customer is having connectivity issues with their JetWave high-speed internet service, they call the same area and that team is sitting right next to [the field service engineering] team because maybe it's a software issue or maybe it's a hardware issue."

Another outgrowth of that initiative is the creation of a customer events coordinator, "one person who is navigating the big red Honeywell machine to take care of my need and get me back in the air," he explained.



**Above & Beyond: Reader Comments**

**Juan Bachmann (Collins)**

*Always ready to help customers.*

**Bill Stone (Garmin)**

*Bill is incredibly responsive and committed to providing the highest level of support. With his 30+ years of experience, he understands operators need quick answers.*

**Raget Taleh (Honeywell)**

*Outstanding Product support for avionics modifications.*

**Jiri Humi (Honeywell)**

*Jiri has time and time again helped bring the operator, the OEM (Honeywell), and the service center (channel partner) together and find a mutually acceptable solution in a reasonable timeframe. Great job, Jiri! Thank you!*

**Tom Olmstead (Honeywell)**

*Excellent Honeywell technical support.*

**John Braidich (Honeywell)**

*He is exceptionally knowledgeable and extremely helpful!*

**Len Liotta (Satcom Direct)**

*Extremely responsive and finds solutions for our needs.*

**Frederic Bertrand (Satcom Direct)**

*Smart tech for trouble shooting.*

**W. Wilson (Universal Avionics)**

*Great support for Universal Avionics equipment in Falcon 900.*

**Mike Marie (Universal Avionics)**

*Helped us tremendously with our first FANS 1/A install.*

**Eric Carlson (Universal Avionics)**

*He responds 24/7 and knows his company's products.*

**Gogo Business Aviation**

**The Results**

Gogo led Airborne Connectivity with an Overall Average rating of 8.5, the same as last year. It received high marks for Parts Availability (8.7), Cost of Parts (7.7), AOG Response (8.7), Warranty Fulfillment (8.8), Technical Manuals (8.2), Technical Reps (8.9), and Overall Avionics Reliability (8.6).

**The Improvements**

Within Gogo's Colorado support center, the company has focused on improving infrastructure, said senior v-p of customer operations Dave Glenn. One example is the upgrade of the five-year-old phone system. The previous phone system couldn't integrate with the Salesforce platform, including its case management tool, where the replacement phone system can.

"So now a call comes in and if somebody has a trouble ticket open it pops up on the representative's screen," he said. "There's not a lot of back and forth of us asking, 'Who are you and what can we do for you?' We know why they are calling. It's very powerful and it saves the customer a lot of time having to re-explain themselves." What's more, the new system will automatically attempt

to contact the Gogo representative they were previously working with on that issue, provided they are available, Glenn added.

Gogo has also secured its own FAA repair station certificate, which allows its seven field service engineers in the U.S.—at business aviation airports including Teterboro, Van Nuys, and Palm Beach—not only to troubleshoot problems for Gogo customers but now to fix them on the spot in partnership with flight departments and authorized dealers/MROs. "We resolve 98 percent of [issues] remotely but the 2 percent that need hands on boxes, they go do it," Glenn said.

More recently, Gogo has added a new capability to proactively identify issues with its Avance platform even when customers aren't aware of an issue. Glenn explained the company's development team has designed an algorithm to identify when an Avance L3 or L5 system is operating sub-optimally, rolling out that capability in July. "When...you can pick up the phone and tell the customer that we found your issue and we fixed it, and you didn't even know you had it, that's a powerful place to be," Glenn said.



## Satcom Direct

### The Results

After a first-place tie with Gogo in Cabin Electronics Overall Average last year with a rating of 8.5, Satcom Direct edged lower this year with an Airborne Connectivity Overall Average rating of 8.2 in this year's survey.

### The Improvements

Over the past 12 months, Satcom Direct has made product support improvements that include upgrades to its network operations center (NOC) and terrestrial network as well as progress on the MySky AI-powered spend management program.

The NOC upgrade at its Melbourne headquarters allows Satcom Direct to aggregate, collate, and analyze the increasing amounts of data generated by business aircraft activity. Featuring a 72- by 10-foot digital wall displaying real-time global customer connectivity activity, the NOC upgrade helps Satcom Direct identify any connectivity outage, degradation, or systemic issues. From the NOC, Satcom Direct personnel can resolve issues including during flight.

Cybersecurity management has also been enhanced with abnormal patterns of data behavior highlighted to stimulate mitigative action. In addition, Satcom Direct can also alert crewmembers to advise passengers of any necessary action needed to prevent potential cyber events.

"As recent events have highlighted, and as our own cybersecurity experts have observed, there has been a notable rise in malicious cyber events in the last 12 months," Satcom Direct founder and CEO Jim Jensen wrote in a June 2021 letter about company activities. "Our investments in infrastructure and cybersecurity solutions ensure [customers] stay ahead of these dynamic threats."

An expansion of its terrestrial network with enhanced individual Points of Presence (PoPs) and network upgrades is also helping Satcom Direct support customers' growing need for connectivity. Those enhancements include more connectivity options, in part from expansion in the Asia-Pacific region. Satcom Direct also upgraded antennas at its Comsat teleports, the company said, adding capacity throughout its network.

In August, Satcom Direct completed the first phase of integration of the MySky AI-powered spend management program into its flight operations platform. Subscribers can access and optimize their expense and operational data directly from the SD Pro dashboard through the strategic partnership with MySky. Graphics generated from MySky around spend efficiency are displayed alongside operations data on the dashboard interface, allowing users to easily switch between the two as they make decisions surrounding efficiency, budgeting, and asset management. The MySky Budget program that offers predictive budgeting analysis is expected to be integrated in the spend management program in the future.

## Collins Aerospace

### The Results

Collins is the only other OEM whose support was rated by **AIN** readers in all three segments of this year's Product Support Survey. It placed second in Flight Deck Avionics Overall Average (8.3) and Cabin Management Systems (CMS) Overall Average (7.9) and scored an 8.3 in Airborne Connectivity, recording year-over-year ratings gains ranging from 0.1 to 0.5. The Charlotte, North Carolina-based company also received high marks for Cost per Hour Programs (8.3) in the Cabin Management Systems segment. In the Airborne Connectivity segment, Collins Aerospace received a smaller number of respondents.

### The Improvements

Lisa Steffen, Collins v-p and general manager of avionics service and support, said taking a cue from the lessons learned during Covid-19, Collins placed greater emphasis on adaptability in customer support in the past year.

For one, the company was able to continue the rapid deployment of technology that enabled remote work for its employees, particularly those in round-the-clock technical and repair support as well as spares availability, to avoid interruption. She said it was also key that Collins customers were able to access the resources that they needed, prompting a rebuild of the Collins authorized dealer portal to simplify the process of accessing frequently used resources. Lastly, the company implemented an option to electronically sign service contracts, which resulted in a significantly reduced turnaround time from signature to contract effectiveness.

"Our customers have come to expect a dedicated, experienced, and global team of customer support professionals, and we worked hard to provide that every day, despite many of the challenges we have experienced this year," said Steffen. "Collins Aerospace continued to deliver quality products, on-schedule, and provide timely and effortless problem resolution."

## Universal Avionics

### The Results

Universal Avionics received a rating in Flight Deck Avionics Overall Average of 8.2, which was down from the 8.3 rating from last year. The company did receive high marks for Technical Reps at 8.5, but it should be noted that this year's respondent sample for Universal was small.

### The Improvements

After Universal Avionics v-p of business development and marketing Marc Bouliane added services to his title and responsibilities in the spring of 2020, he set out to create a singular service and support organization within the avionics OEM. Previously, areas including field service, warranty, and repair were under their own management and reported to different directors or vice presidents, he said. "I wanted to specifically emphasize all of the activities that are related to how we interact with our customers once an initial new transaction has occurred," Bouliane added. "I think it's just one example of how we are increasing our attention on services."

Another example of how the Tucson, Arizona-based company has sought to improve its services is through training and specifically the launch of what it calls UA Academy, an online learning center aimed at offering on-demand courses to its customer base of pilots, technicians, and authorized dealers and integrators. Despite the timing of the launch of UA Academy during the pandemic, it was a service planned before anyone had heard of Covid-19, Bouliane said.

Previously, UA had provided face-to-face training with PowerPoint presentations and

hands-on products. This allows customers to train at their own pace and when it is most convenient for them, he said.

"We've had hundreds of customers using it since then and we've continued to invest into it," he said. Initial training offerings were on topics that he said customers needed the most—such as SBAS Flight Management System Operations, Vertical Navigation Made Easy, and Data Link Fundamentals—to more recently, "items that take more time and are a lot more comprehensive" such as Enhanced Flight Vision Systems 101.

The online training mixes interactive elements with short instructional videos. Also, online courses can be paired with desktop training software and devices as well as scenario-based instructor-led classroom training.

Another example of Universal's product support improvements over the past year is a diagnostic and maintenance solution for its InSight Display System that enables Universal to remotely sync, troubleshoot, diagnose, and configure core software for its EFI-1040 Displays, Touch EFIS Control Display Units, and Alphanumeric Keyboards that are already installed in an aircraft. In one instance the company successfully updated its equipment on a Hawker 800XP located thousands of miles away from Tucson, saving at least 10 days of downtime and eliminating the need to ship the InSight equipment to Universal for repair. "We've done it on many aircraft to assist customers getting aircraft back to service, particularly in the context where we could not travel to these international destinations because of travel restrictions," Bouliane said.