

Product Support Survey

by Matt Thurber

Flight Deck Avionics

In the flight deck avionics section of this year's **AIN** Product Support Survey, Garmin remains the number one choice of **AIN** readers with an overall average of 8.4 (of a possible 10), up 0.1 from last year's score (also first-place). Rockwell Collins, although down 0.1 this year, remains in second place, matching last year's ranking.

In third place are two companies scoring 7.9, Honeywell and Universal Avionics. For Honeywell, this year's score is a significant jump of half a point and a move up from fourth place last year. Universal's score is up 0.1.

L3 Avionics received enough responses this year to be included and landed in fourth place with an overall average of 7.6, followed by Honeywell's BendixKing unit at 7.5

In the seven categories rated by **AIN** readers, Garmin garnered top scores in five: parts availability (8.8), cost of parts (7.7), AOG response (8.4), warranty fulfillment (8.8), and technical reps (8.4).

Universal Avionics rated highest in technical manuals (8.4).

L3 Avionics made its debut in the survey results with a significantly high score for overall product reliability (8.9).

Cabin Electronics

With an 8.2 overall average, Gogo Business Aviation moved up to a tie for first place in the cabin electronics section of the Product Support Survey, sharing the top spot with last year's highest-ranked company, Satcom Direct (down 0.3).

In second place this year at 7.9 is Gulfstream Cabin Management, which represents the manufacturer's own CMS installed in its new aircraft.

Honeywell remains at third place this year, but its overall average dropped 0.3 to 7.6.

Lufthansa Technik made a large move, up from sixth place last year to fourth this year, with an overall average of 7.4, up a significant 0.7.

Rockwell Collins took fifth place at 7.3, from fourth last year, followed by Aircraft Cabin Systems with a 7.1 overall average.

In the seven categories rated by **AIN** readers, Gogo Business Aviation topped the rankings in three categories: parts availability (8.6), cost of parts (7.8), and warranty fulfillment (8.9). Satcom Direct scored highest in AOG response (8.8) and overall product reliability (8.4). Gulfstream Cabin Management saw its highest scores in technical manuals (8.1) and technical reps (8.9).



What Have You Done For Me?

AIN interviewed customer support experts from the major business aviation avionics manufacturers to learn how they have improved their product support efforts during the past year.

Garmin

One of the secrets to Garmin's top score in product support is the direct involvement of customer support personnel in general aviation. "Our commitment to our customers and to the customer experience is probably unique," said Lee Moore, director of aviation product support.

"Most of us have installation experience, flying experience, or both." Backgrounds include a former military Harrier jump-jet pilot, business jet fliers, flight instructors, homebuilt aircraft builders, airline pilots, "and plenty of aircraft owners." Moore was a former USAF combat search-and-rescue flight engineer. "That sets us apart from the competition," he said.

To facilitate problem-solving, Garmin maintains a full complement of aviation products in its support center in Olathe, Kansas and Salem, Oregon, and this

capability is replicated in its facilities in the UK, Germany, Singapore, and Australia. Support personnel can thus duplicate customer problems and find answers quickly.

With facilities around the world, Garmin doesn't need to keep any office open 24/7/365, but it is able to provide round-the-clock AOG support by directing calls to an office that is open. This "follow the sun" service is "virtually seamless," Moore said.

Several years ago, Garmin adopted a database tool that gathers feedback from customers to drive improvements in product development. This has led to significant improvements in reliability, especially as the company has adopted the latest technology. "We're always looking to drive reliability into products and taking their feedback directly and sharing it with engineering," he said.

This year, Garmin shipped its one



millionth certified avionics product, according to Moore. The overall size of the Garmin support team (more than 120 people in the field alone) hasn't changed, but the reliability of the products has been outpaced by demand, so support efforts require the same number of people.

As leader of the product support team, Moore is involved in developing new products from the early days of the process, to

help ensure that maintainability is built in.

"That's something unique to Garmin," he said, "the passion that everybody here has for our aviation products. We are all customers of our own products."

Honeywell

Honeywell has added significant improvements to its Honeywell Avionics Protection Plan (Happ) to serve business and

general aviation as well as commercial helicopter customers.

The main new feature basically means one-stop shopping for avionics and mechanical component repairs, by allowing customers to add non-Honeywell avionics and mechanical components to an existing maintenance plan.

Happ members can now enroll in Happ Gold without paying an additional premium and enjoy the benefits for avionics that are still under warranty. So even for avionics under warranty, an operator can use Happ benefits and lifecycle savings, “such as access to spares and exchanges instead of warranty repairs and 24/7 emergency services,” according to Honeywell, “without paying the usual Happ Gold premium.”

Under the new plan, operators can stock spare parts at their facility to help lower downtime by eliminating the wait for parts to be shipped. Fleet operators can also choose flexible contract options and special pricing options.

“By offering customers more options to protect their cockpit investments, we continue to deliver on our commitment of taking the guesswork out of maintenance and making sure customers’ aircraft are ready to get back into the air as fast as possible,” said Jon Kelley, senior director of product marketing. “These new plan extensions give customers full coverage on Honeywell cockpit technologies and more.”

Rockwell Collins

At Rockwell Collins, said Craig Bries, senior director of customer support, “We continue to drive toward increased customer satisfaction, reduced customer effort, and using information to deliver support solutions.” Those three factors are of critical importance, he explained.

For the first, customer satisfaction, the Rockwell Collins customer support team aims to fix the problem the first time so it doesn’t have to be revisited. This is known as next-issue avoidance.

In reducing customer effort, Rockwell Collins measures its achievement of this target, and it is now at 90 to 93 percent. “We want every experience that our customers have to be a low-effort experience,” he said. This means getting the fix to the customer, wherever they are, solving the problem, and making sure the customer expends the lowest possible effort.

On the information front, Rockwell Collins pulls information from multiple sources and uses that feedback to drive improvements, which ultimately leads to greater customer satisfaction. This includes customer advisory boards and feedback from the company’s 24/7 support center. “We log and manage this in a voice-of-the-customer process,” Bries said, “and we take

that and couple that with internal product repair performance data, then put those together to triangulate what’s going on in the market and take care of the issues.”

An important part of making sure customer aircraft are available to fly is Rockwell Collins’s Corporate Aircraft Service Program. “This brings flexible options to ensure availability with a predictable budget and parts ready when they need them,” he said. “This has been really well received by the market.”

Another way that Rockwell Collins puts voice-of-the-customer to work is to determine which questions customers are asking frequently, then creating self-help videos and articles to help show the answer. Some customers prefer the self-help route instead of calling a tech rep or support center, Bries explained. “We’re getting a lot of activity on the videos,” he added, and they are available for anyone to view. “We want them to have an easy self-help guide if they so choose,” he said, “otherwise we’re happy to help.”

Universal Avionics

“One thing sets us apart as far as our field support team,” said Ric Miller, manager of technical and field support and the customer training department. “Our people have a vast amount of experience on other systems that we integrate with, as well as own products.”

The support team’s knowledge of Universal’s flight management systems (FMS), displays, communications interfaces, and cockpit voice recorders is critical, he explained, but so too is their understanding of how those products integrate with other manufacturers’ avionics. “We don’t just leave that to our dealers and customers,” he said.

There are some installations, for example a FANS upgrade, where the optimal solution is a standalone FMS upgrade and others where the customer will benefit with a fully integrated solution that leverages capabilities offered by modern technology, such as LPV approaches. Universal’s support team is able to help customers find the best solution for their aircraft.

With its own repair station at the Universal headquarters in Tucson, Arizona, engineers and technical support personnel work together to analyze failures and develop permanent solutions and product improvements. Customers can also take advantage of Universal’s Wichita, Kansas, repair station for FMS repairs if Tucson is too distant. Although authorized service centers, including those in Brazil, Switzerland, and Australia, can’t do board-level repairs, they can do board replacements and software updates, saving customers the time to ship a unit back to the U.S.



Rockwell Collins



Honeywell

Above & Beyond

Avionics

James Buck (Aspen Avionics)

James provides excellent customer service, above and beyond expectations. He’s proactive, helpful, and very patient.

Mike Witte (AVMATS)

One of the very best at understanding avionics and wiring. Very helpful with all issues. A true master of his trade!

Thom Duncan (Carpenter Avionics)

Thom has always provided the highest degree of professionalism possible. Estimates on both price and time have always been spot on. His knowledge of all the products they sell and service is phenomenal. Would recommend them to anyone.

Dave Brown (Garmin)

Dave is truly concerned with clients’ overall satisfaction of product. He will go and has gone the extra mile to be exact to ensure satisfaction.

George Risinger (Honeywell)

George and his entire team at Honeywell’s Go Direct Flight Services Flight Sentinel always

provide above and beyond excellent service. Their attention to detail, follow up, and proactive help is an important part of our ability to maintain the flexibility we require to meet our demanding and ever changing flight schedule.

Jim Brooks (Rockwell Collins)

Jim is a consummate professional who treats us fairly and with respect. He has outstanding knowledge and anything he is unable to help with he ensures someone at Rockwell Collins gets involved. Sadly, many issues are outside of his ability to fix but he helps keep us calm about it.

Fulvio Moro (SD)

He is very good on his subject with deep knowledge and the will to provide excellent services. He is ready to provide any kind of theoretical or practical details and train crewmembers on the airplane. Very willing to provide his services and a high-level of customer support.

Christian Zumkeller (Universal Avionics)

He is so customer-oriented not only to find the best way to integrate products but also to find short repair TAT and exchanges.



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AOG coverage is available 24/7, either during normal business hours in Arizona or after hours via technical reps in Europe and Asia. "Someone is going to answer the phone and direct you to tech support, customer service, tech pubs, and training," he said.

"Training is very important," Miller said. "We like to ensure that operators

and end users are as familiar as possible with the use of those systems, so they're confident and safe and getting the full capability out of the system." Classroom and online training is available for pilots and mechanics on all the company's products. Recently Universal completed a web-based course for its InSight integrated flight deck, and it should be soon approved for operational

approval with no additional classroom training, he said.

Universal's products stay in aircraft for decades, Miller explained. "Products in our industry have to be operational for a much longer span of time than in the consumer electronics industry. There are aircraft with 40-year old avionics still in operation. We have to meet a longer support life and higher reliability than many

other industries. We have to have more reliable components, designs, software verification processes, and an ongoing path for improvement for the future for any product. Any company in our industry is doing the same. We're always looking for ways to improve the safety of flight, convenience of the operator, the workload of the crew, and the overall experience of using our product." ■



Universal Avionics

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, turboprop airplanes and turbine-powered helicopters statistically valid information about the product support provided by manufacturers of business aircraft, avionics and engines over the last year and to report this information to our readers. The ultimate goal of the survey 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 9. Respondents were asked to rate both cockpit avionics and cabin electronics and to indicate the region where these products are normally serviced. 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 full list of these people is available online at www.ainonline.com/above-beyond-2018.

The 2018 AIN Product Support Survey aircraft results were published in the August issue, and engines will be featured next month. ■

2018 Average Ratings of Flight Deck Avionics & Cabin Electronics	2018 Overall Average	2017 Overall Average	Ratings Change from 2017 to 2018	Parts Availability	Cost of Parts	AOG Response	Warranty Fulfillment	Technical Manuals	Technical Reps	Overall Product Reliability
Flight Deck Avionics										
Garmin	8.4	8.3	0.1	8.8	7.7	8.4	8.8	8.2	8.4	8.8
Rockwell Collins	8.0	8.1	-0.1	8.1	6.8	8.1	8.5	8.0	8.3	8.5
Honeywell	7.9	7.4	0.5	8.2	6.7	7.9	8.4	7.8	7.8	8.4
Universal Avionics		7.8	0.1	7.9	6.2	7.5	8.1	8.3	8.3	8.8
L3 Avionics Systems	7.6	N/A	N/A	7.2	7.1	6.8	7.8	7.6	7.0	8.9
BendixKing by Honeywell	7.5	7.4	0.1	7.3	6.9	7.9	7.8	7.5	7.5	7.7
Cabin Electronics										
Gogo Business Aviation	8.2	8.2	0.0	8.6	7.8	8.4	8.9	7.7	8.4	7.8
SD (Satcom Direct)		8.5	-0.3	8.4	7.1	8.8	8.8	7.6	8.4	8.4
Gulfstream Cabin Management	7.9	7.9	0.0	7.6	6.5	8.3	8.0	8.1	8.9	7.7
Honeywell	7.6	7.9	-0.3	7.9	6.4	7.6	8.6	7.3	8.0	7.8
Lufthansa Technik	7.4	6.7	0.7	8.0	6.0	8.1	7.9	7.0	7.2	7.8
Rockwell Collins	7.3	7.5	-0.2	7.5	6.5	7.0	8.2	7.0	7.6	7.2
Aircraft Cabin Systems	7.1	7.2	-0.1	7.5	6.4	7.0	7.4	6.5	7.4	7.1

*Companies listed in order of their 2018 overall average. Ties are listed alphabetically. **Bold** indicates highest number in each category