

PRODUCT SUPPORT SURVEY 2015

SPECIAL REPORT

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Part 2: AVIONICS

The lines between aircraft systems, avionics and cabin electronics are blurring; modern aircraft are an amalgamation of interconnected and mostly electronic systems, and the manufacturers that make these electronic elements have taken on a role as critical facilitators of the product-support effort. At the same time and especially in older aircraft, there remain plenty of so-called federated avionics products, standalone devices that do their jobs without a lot of interaction or integration with other avionics or aircraft systems.

No matter what types of product are installed, however, the fact remains that any failure of the electronics often renders the aircraft unairworthy, and keeping aircraft in the air or available to fly is crucial. To underscore the importance of product support offered by avionics and cabin electronics manufacturers, **AIN** conducts an annual survey to see what readers think about the support they are receiving. Here are this year's results.

Cockpit Avionics

Garmin is holding steady at the top of the **AIN** Avionics Product Support Survey with the same overall average as last year (8.3). Rockwell Collins and Universal Avionics, in a tight race last year for second place, both scored the same second-place rating of 8.0 this year. To reach that rating, Rockwell Collins saw a 0.3-point bump this year, while Universal's rating jumped 0.2. Third place this year was taken by Honeywell's BendixKing division, which tallied the highest change in overall average, up 0.6 from last year.

Avidyne improved its standing from last year, moving up to fourth place and a 7.6 overall average, up from fifth place and a 7.2 rating. Honeywell traded places with Avidyne this year but also saw a 0.1-point improvement in its overall average. Showing up for the first time in the survey results is Thales, which means that more **AIN** readers are flying with the company's equipment.

In the individual category ratings, both Garmin and Rockwell Collins scored the top rating (8.7) for overall product reliability. Garmin's first place overall average was also aided by top scores in technical reps (tied with Rockwell Collins and Universal Avionics at 8.1), warranty

Companies outline recent customer service initiatives

Although avionics and cabin electronics have grown more reliable with advances in technology, there is no substitute for after-sale support when a piece of equipment fails. To learn more about this important facet of their business, we asked companies that make avionics and cabin electronics equipment to summarize improvements in their product support activities during the past year. Not all manufacturers responded.

Avidyne

Avidyne says it has ramped up its technical support staff to handle a growing base of customers, now that the new IFD540 and IFD440 touchscreen navigators are certified and in service. In addition to expanding the support staff, Avidyne has consolidated support personnel at its Melbourne, Fla. repair

station to improve tracking of repairs and to speed resolution of customer issues. The MyAvidyne.com website has been upgraded, and Avidyne techs can more efficiently analyze flight display logs using improved automated diagnostic tools.

Century Flight Systems

There are more than 1,600 STCs for installation of Century autopilots and many thousands of systems still flying and in need of support. "We pride ourselves on still supporting many systems that are 30 to 40 years old," said business development manager Alan Flewitt. "Not many manufacturers, with all honesty, can promise that level of product support." The company's current product line includes the CI, C41, C2000, Tri-den and C4000 autopilots.

fulfillment (8.8), AOG response (also tied with Rockwell Collins at 8.1), cost of parts (7.5) and parts availability (8.7). Universal Avionics's top category ratings also included an 8.0 for technical manuals.

Cabin Electronics

AIN received enough responses from readers this year to include five cabin electronics manufacturers, among them new addition Lufthansa Technik. The rankings for the first four companies this year changed from last year, with Satcom Direct adding 0.1 to tie for first place with Gogo Business Aviation at an overall average of 8.2. Honeywell, with a 0.2 bump to 7.5, moved up to a second-place tie with Rockwell Collins, the company with the highest jump in the overall average rating this year, up 0.8 to 7.5. Newly listed Lufthansa Technik came in a close third at 7.4.

Gogo Business Aviation dominated the individual category ratings, with a 7.4 for cost of parts, 8.3 for AOG response, 8.7 for warranty fulfillment, 7.7 for technical manuals and 8.3 for overall product reliability. Satcom Direct was recognized for parts availability (8.5) and technical reps (9.0).

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Esterline CMC

Esterline CMC has consolidated its Canadian MRO capabilities into a single facility, the company notes, “to provide a more structured and focused service

for its customers.” Earlier this year, Esterline CMC acquired Barco’s avionics display line and it is completing the integration of those products. Esterline CMC is also expanding its

MRO and distribution capabilities in Europe, centered at facilities located in Belgium. Also under way is “implementation of lean transformation projects and process flow optimization.”

FreeFlight Systems

To keep up with the influx of ADS-B equipment installations, for which FreeFlight Systems offers solutions from light aircraft to the largest airliners, FreeFlight says it is adding manpower to continue improving customer support capabilities.

New hires include Dave Graham, the NextGen customer support manager, and Brad Brunson, technical services manager, who is responsible for dealer and installer training and support.

Earlier this year FreeFlight launched the Blue Care extended warranty and enhanced product support program. Included in Blue Care are exchange options and quick turnaround services to help keep customers’ aircraft in the air.

Garmin

A result of multiple “customer-focused events” during

2015 Average Ratings of Cockpit Avionics and Cabin Electronics

	Overall Average 2015	Overall Average 2014	Ratings Changes 2014 to 2015	Parts Availability	Cost of Parts	AOG Response	Warranty Fulfillment	Technical Manuals	Technical Reps	Overall Product Reliability
Cockpit Avionics Manufacturers										
Garmin	8.3	8.3	0.0	8.7	7.5	8.1	8.8	7.8	8.1	8.7
Rockwell Collins	8.0	7.7	0.3	8.2	6.5	8.1	8.3	7.6	8.1	8.7
Universal Avionics	8.0	7.8	0.2	8.2	7.0	7.8	8.0	8.0	8.1	8.5
BendixKing by Honeywell	7.7	7.1	0.6	7.9	6.7	7.8	8.0	7.5	7.5	8.6
Avidyne	7.6	7.2	0.4	7.2	6.8	7.8	8.7	6.3	7.8	8.5
Honeywell	7.5	7.4	0.1	7.7	6.1	7.8	7.9	7.7	7.5	8.0
Thales	5.9	N/A	N/A	6.4	4.5	6.4	6.6	5.5	5.5	6.1
Cabin Electronics Manufacturers										
Gogo Business Aviation (Aircell)	8.2	8.2	0.0	8.4	7.4	8.3	8.7	7.7	8.1	8.3
Satcom Direct	8.2	8.1	0.1	8.5	7.2	8.2	8.1	7.6	9.0	8.2
Honeywell	7.5	7.3	0.2	7.6	6.5	7.7	8.0	7.2	7.5	7.8
Rockwell Collins	7.5	6.7	0.8	7.7	6.5	7.7	8.5	6.9	7.7	7.5
Lufthansa Technik	7.4	N/A	N/A	7.7	5.6	6.5	7.9	7.2	7.5	8.1

*Companies listed in order of their 2015 overall average
Ties are listed alphabetically
Bold indicates highest number in each category

Rating Scale: 1 2 3 4 5 6 7 8 9 10
Inadequate Poor Average Good Excellent

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the past year has been Garmin's opening of a spares facility in Hong Kong. Another such facility is planned in Europe to augment the existing spares pool in the UK. Garmin has also simplified support processes, and customers around the world can tap its 24/7 AOG support hotline. The avionics manufacturer says it "is dedicated to continuous improvement of our products and support services."

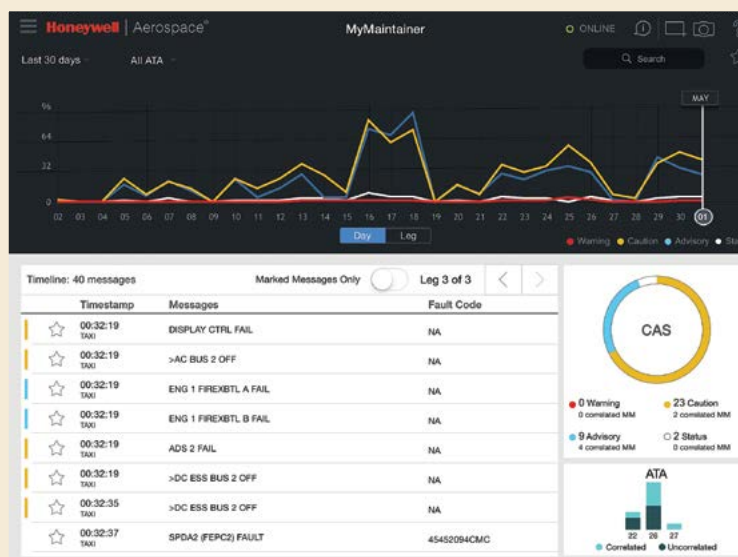
Gogo Business Aviation

Now fully rebranded as Gogo Business Aviation, the manufacturer of the only air-to-ground telecom system currently available says it has made a number of improvements during the past year. Gogo moved into a new building equipped with a technical support lab that can test and simulate real-world aircraft environments to help support personnel troubleshoot problems more quickly. Gogo's enhanced real-time monitoring also facilitates the company's "ability to deep-dive into customer issues."

Among the improvements to the support process are more efficient and intuitive phone routing; enhanced trouble ticketing system integrated with a new customer relationship management program; more service and support personnel, including the addition of staff in the UK; and a one-stop shop on the Gogo customer portal for access to technical documents, service information letters, notices of changes, order tracking and usage monitoring.

Honeywell

Honeywell says customer feedback has driven improved access to information on its MyAerospace.com customer portal. The



Honeywell introduced the MyMaintainer mobile app to help operators gain easy access to data stored in the onboard Data LAN Management Unit Wireless, which logs fault history and enables comparison of similar faults to speed troubleshooting.

terms of the Honeywell Avionics Protection Plan (Happ) and Mechanical Protection Plan (MPP) have been lengthened to three years with a fixed 3-percent escalation rate. For additional coverage, operators can add Happ Gold to existing Happ agreements for \$30 per flight hour. Services provided with Gold include 24/7 worldwide AOG road-crew support; counter-to-counter, first-morning and Saturday delivery; coverage of additional fees for no-fault-found or recertification of components; and access to technical documents, pilot guides, system descriptions and operation manuals.

Honeywell has also deployed a mobile app, MyMaintainer, which allows technicians to access data stored in the onboard Data LAN Management Unit Wireless (DLMU-w) system. For security, only approved and certified devices can access the DLMU-w using the app. "It will also log fault history," according

to Honeywell, "and allow users to compare similar faults for ease of troubleshooting."

International Communications Group (ICG)

ICG began scheduling classroom training for customers and dealers on its new eRouter products last month. "The product support team provides first-hand instruction on how to make the most efficient use of the eRouter, which provides scalable voice and data routing services designed for aircraft applications," according to ICG.

The company also tailored its Operations & Flight Line Maintenance Training course for the NxtLink ICS-120A and ICS-220A Iridium satcom systems to help answer any requirements and concerns of avionics engineers

and technicians designing and installing data-link and flight-deck communication systems. The course was FAA approved for Inspection Authorization renewal training. ICG offers on-site training to help customers with their specific aircraft installation.

Innovative Solutions and Support (IS&S)

IS&S has added field engineering representatives at high-volume airports for quick dispatch to customer locations, to expand customer service and support activities, especially for installation issues before, during and after modifications.

For swifter problem solving, IS&S has developed software that helps customers "interface, identify and troubleshoot aircraft installation and operational issues.

"The end result allows faster diagnosis and correction of issues affecting the aircraft, which shortens maintenance downtime and maintains high dispatch reliability and/or operational readiness," according to IS&S.



ICG's NxtLink ICS-T20A Iridium satcom system

Mid-Continent Instruments and Avionics

In business for 50 years, Mid-Continent Instruments and Avionics, through its True Blue Power subsidiary, has become a supplier of lithium-ion main-ship batteries for airplanes and helicopters as well as for experimental amateur-built aircraft. To help educate the industry about the new batteries, Mid-Continent offers training at trade shows and events and its Lithium Batteries 101 series. According to the company, the

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course “outlines proper maintenance, handling, storage, shipping and safety regarding the technology—not just True Blue Power products.”

The company has added expanded ELT services as well as authorization of its Van Nuys, Calif. facility as a repair center for Trig Avionics (the Wichita headquarters holds the same authorization). Mid-Continent continues to add to its overhaul/exchange pool so it can offer same-day shipping without expedited service fees. Mid-Continent authorized warranty centers have been added in Germany and Australia.

Rockwell Collins

Rockwell Collins solicits customer feedback through surveys, advisory boards and day-to-day interactions to identify “ways to retain and improve high customer satisfaction and reduce unnecessary callbacks,” the company said. Some of the improvements in the customer support effort are attributable to the Rockwell Collins Service

First Customer Support Center, which opened in the fall of 2013.

Another effort, resulting from reviews of customer concerns, has been helping customers with self-service support alternatives by adding information on the company’s website. Customers can use the Service First iOS or Android app to view a list of Rockwell Collins customer support engineers and dealers. Support engineers are located worldwide to assist customers and dealers.

Sandel Avionics

Sandel says that tracking of customer satisfaction key performance indicators shows continued improvement, including a 58-percent response rate to Sandel’s annual customer support survey and an average score of 4.5 out of five. Repair turnaround times have improved during the past year, to 6.8 days during the first half of this year, significantly better than the 10 days the company was logging last year. Sandel



The TY92 high-power and compact VHF radio by Trig Avionics

expects to reach a target of five days by year-end.

Trig Avionics

In the U.S., Trig Avionics has signed up Mid-Continent Instruments and Avionics as its approved service center. In the rest of the world, Australian Avionics provides support for Southeast Asia, while Trig’s Edinburgh headquarters in the UK supports European customers and those based in other parts of the world. Trig’s support website provides detailed answers to ADS-B questions as well as free access to complete installation and user manuals.

TrueNorth Avionics

TrueNorth reports it has

assigned a specialist manager to oversee operation of the company’s reliability and maintainability program.

As a result of customer feedback, it also added staff and tools to improve product deployment, installation and training.

TrueNorth also plans—at this year’s NBAA show—to unveil “a new warranty program that will focus on further reducing turnaround times, and continuing to increase customer satisfaction.”

Universal Avionics Systems

Universal’s product support efforts include the FlightAssure extended warranty program and instructor-led and online operational training. The company also offers live support during business hours.

According to Universal, “Whether they are looking for a replacement part or a solution to an issue, customers can end their call knowing that someone is working with them.” □

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 business aircraft manufacturers 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 questionnaire. In total, 16,338 readers were invited to participate in the survey.

The survey website was open from May 4 to June 12. 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:

- **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 list of these people is available online at www.ainonline.com/above-beyond-2015.

The 2015 AIN Product Support Survey results for aircraft were published in the August issue; engines will follow next month. ■