



PRODUCT SUPPORT SURVEY 2014

PART 2: AVIONICS

Garmin remains tops for avionics, Aircell leads for cabin electronics

by Matt Thurber (narrative) and David Leach (data and charts)

Cockpit Avionics

Garmin held on to its first-place position in AIN's 2014 Avionics Product Support Survey, scoring an 8.3 rating from AIN readers, the same number as last year. L-3 Avionics moved up to second place this year, a half-point jump to 7.8 from last year's fourth-place rating of 7.3 and tied with Universal Avionics, which also held the second-place spot last year. Rockwell Collins moved up a tenth of a point to 7.7 this year for third place, the same spot it held in last year's survey.

Honeywell's fourth-place ranking this year is one place higher on the list and the company also enjoyed a three-tenths-of-a-point climb in its rating to 7.4 from 7.1. In fifth place this year is Avidyne, which saw a ratings drop to 7.2, followed by Honeywell's BendixKing subsidiary with a one-tenth-point climb to 7.1.

High scores in the rankings categories went across the board to Garmin for parts availability (8.5), cost of parts (7.6), AOG response (8.2), warranty fulfillment (8.5), technical manuals (8.1), technical reps (8.3) and overall product reliability (8.8).

Cabin Electronics

This year a slight survey design change led to diminished responses for cabin electronics manufacturers (see box on page 37) as a result. The survey, however, did highlight four companies in the cabin electronics arena.

AIN readers ranked Aircell as the top provider of product support with an 8.2 rating, two-tenths higher than last year's first-place ranking. Satcom Direct received enough ratings this year (the minimum is 20) to be listed in the results, and the company achieved a second-place ranking at 8.1.

Honeywell's 7.3 rating is the same as last year's, but the company moved to third place from fourth last year.

Rockwell Collins saw a ratings drop this year to 6.7 from 7.4, moving to fourth from third place.

In the cabin electronics segment, Aircell ranked top in parts availability (8.3), cost of parts (7.5) and overall product reliability (9.0). Second-place finisher Satcom Direct scored the highest number for AOG response at 8.4 and also the highest in warranty fulfillment (8.3) and technical reps (8.8).

What have you done for me lately?

Each year AIN asks avionics manufacturers to provide information about what they have done to improve product support during the past year. The following are summaries of those efforts. Not all manufacturers were able to respond in time, and some are included even though they didn't receive enough ratings to be listed in the final rankings—in recognition of their efforts to serve their customers.

BendixKing

BendixKing, the Honeywell division that makes avionics for general aviation aircraft, has created its own customer and product support team, and this team's focus is exclusively on BendixKing products. The customer support operation was redesigned so customers can quickly reach an expert in the specific product category, according to the company, and "they no longer have to go through a long list of items. Call a number and then hit a selection." BendixKing now offers on-call after-hours support, too.

Aircell Gogo Biz

Aircell's technical support, customer service, aircraft engineering and other support staff have been increased 50 percent during the past year, "to keep pace with our rapidly expanding customer base," the company noted. Technical support functions have been segregated from other support functions to improve the support provided to Aircell customers.

Customers and technicians have more options for technical training on Aircell products, following expansion of these programs. Attendees in Aircell training programs doubled during the past year.

To facilitate technical support, Aircell support personnel can now connect directly to a technician's laptop computer "to quickly diagnose and resolve on-aircraft technical issues."



BendixKing

Century Flight Systems

Century Flight Systems not only manufactures new autopilots, including the all-digital Century C4000 series, but also repairs and supports older Century autopilots, including 30- and 40-year-old Piper Altimatic systems still installed in many airplanes.



Garmin

Many Century employees have more than 20 years experience working on autopilots. According to Century, "When a client, either a dealer, installer or owner, wishes to order, receive or have installed one of our systems they can rest assured that the person they speak to has 'eaten, slept and breathed' the Century Flight Systems autopilots for many years."

FreeFlight Systems

Transponder and ADS-B system manufacturer FreeFlight Systems is growing rapidly and has hired several new people. These include a new service technician to help reduce turn times and facilitate cross-training of existing technicians. A new product manager is applying Six Sigma lean techniques to standardize and streamline product flow. FreeFlight created the position of quality director, responsible for AS9100 compliance and overall cradle-to-grave quality management. An additional quality incoming inspector was hired and another quality inspector placed to ensure build/test cycle quality compliance.

FreeFlight also implemented a new enterprise resource planning system this year, which consolidates data from the sales, service, engineering, quality and customer service teams. "This promotes communicating between departments and data is just a click away with our new ERP system," according to the company.

Garmin

Garmin's product support efforts include adding field service engineers and expanding its global spares pools. With customers located throughout the world, Garmin's support offices are based in Australia, Brazil, Germany, Singapore, the UK and U.S.



Innovative Solutions & Support

Garmin has introduced new e-learning systems for its G3000/G5000 integrated touchscreen-controlled flight decks as well as on-site GTN and G500/G600 series training classes "to maximize the operational capabilities and dispatch reliability of their Garmin-equipped aircraft."

Honeywell

In October last year, Honeywell released its Direct Access mobile app, enabling customers to access Honeywell's support network, based on the customer's GPS-derived location.

To make it easier for customers to access Honeywell product information, the company has opened the Pilot Gateway, an online portal with free access to many Honeywell pilot and familiarization guides, training videos and other resources. The Pilot Gateway also allows customers to ask operational questions and to provide feedback to Honeywell.

Honeywell engineers can now connect to customers' noncritical avionics system to remotely view, diagnose and reconfigure these systems. The new Screen-Connect system avoids having

to send a technician to the customer's site.

A media dock for business jets will be available next year. The new dock will interface with a variety of mobile devices and is a result of customer feedback, according to Honeywell.

Honeywell Aerospace Services' Support Asset Strategy (SPEX) is serving customers globally with a hub-and-spoke inventory distribution system, with regional hubs delivering



Honeywell

inventory to high-volume, growth or contractual locations. There are three main regions, each with hub-and-spoke distribution systems: the Americas (three forward stocking locations and two depots); Europe, Middle East, Africa and India (five forward stocking locations and two depots); and Asia-Pacific (one forward stocking location and two depots).

Innovative Solutions & Support

Innovative Solutions & Support (IS&S) has added field service representatives near high-volume international airports for rapid response to support avionics installations before, during and after modification. To speed resolution of problems with flat-panel displays, IS&S has "developed interactive software applications to allow customers to interface, identify and troubleshoot aircraft installation and operational issues," according to the company. This helps lower downtime and improves dispatch reliability through quicker diagnosis and repair.

2014 Average Ratings of Cockpit Avionics and Cabin Electronics

	2014 Overall Average	2013 Overall Average	Ratings Changes from 2013-2014	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	8.5	7.6	8.2	8.5	8.1	8.3	8.8
L-3 Avionics Systems	7.8	7.3	0.5	8.1	6.7	8.1	7.9	7.2	7.9	8.6
Universal Avionics	7.8	7.7	0.1	7.8	6.6	7.9	8.0	7.6	8.2	8.6
Rockwell Collins	7.7	7.6	0.1	7.9	6.4	7.9	8.0	7.5	7.9	8.4
Honeywell	7.4	7.1	0.3	7.4	6.1	7.5	7.8	7.3	7.6	7.9
Avidyne	7.2	7.7	-0.5	6.6	6.1	7.3	6.8	7.3	8.1	8.2
Bendix/King	7.1	7.0	0.1	7.2	5.8	6.7	7.4	6.9	7.5	8.0
Cabin Electronics Manufacturers										
Aircell	8.2	8.0	0.2	8.3	7.5	8.1	8.0	7.3	8.5	9.0
Satcom Direct	8.1	N/A	N/A	7.9	6.6	8.4	8.3	7.4	8.8	8.6
Honeywell	7.3	7.3	0.0	6.9	5.8	7.5	7.9	7.5	7.7	7.9
Rockwell Collins	6.7	7.4	-0.7	6.7	5.9	6.3	7.4	6.4	6.6	7.1

* Companies are listed in order of their 2014 overall average. Ties are listed alphabetically. Bold indicates highest number in each category.



Survey Rules & 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 over the last year and to report this information to our readers. The ultimate goal is to encourage continuous improvement in product support throughout the industry.

This survey was conducted via a dedicated website, created by AIN 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, 21,584 readers were invited to participate. The website was open from May 1 to June 13. Respondents were asked to rate both cockpit avionics and cabin electronics and provide the primary region of service. Respondents were also asked to rate, on a scale from 1 to 10, the quality of service they received 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**—response time, knowledge, effectiveness.
- **Technical Reps**—response time, knowledge, effectiveness.
- **Overall Product Reliability**—how the product's reliability and quality stack up against the competition.

For the 2014 survey, AIN made a technical change of the survey website in the functioning of the avionics section. This year the survey format defaulted to show the tab to select the rating page for cockpit avionics OEMs, whereas in previous years the site had defaulted to the tab for cabin electronics OEMs. Because no other variable had changed, we believe that as a consequence of this change, the total number of reader evaluations of the cabin electronics OEMs decreased. As a result, fewer cabin electronics manufacturers received the requisite number (20) of evaluations to be included in the survey results than in previous years. AIN is including this unanticipated result in its discussions on ways to improve the survey website.

Respondents were also asked to recognize individuals who have provided them with exceptional product support and service. That list is available online at www.ainonline.com/above-beyond-2014.

For information about the survey methodology and for answers to other questions about the survey, please contact David Leach, AIN director of finance and new product/online development, at dleach@ainonline.com. —R.R.P.

PRODUCT SUPPORT SURVEY 2014

PART 2: AVIONICS

International Communications Group

Cabin and cockpit communications system manufacturer International Communications Group (ICG) recently added an online training system for its ePhone cordless cabin telephone system. ICG is determining whether the e-learning system can be used for its other products.

ICG is also adding technical support specialists to meet the needs of a growing customer



International Communications Group

To make installation of its MD302 Standby Attitude Module easier, Mid-Continent obtained a Part 23 approved model list STC from the FAA, which simplifies the installation process for thousands of aircraft.

Having pioneered lithium-ion backup battery systems and its new lithium-ion main-ship batteries, Mid-Continent held a series of Lithium 101 training events at trade shows and industry events during the past year. The training covered proper maintenance, handling, storage, shipping and safety for lithium-ion technology. The company also held sessions on MD302 technical training, including installation, configuration and troubleshooting.

Mid-Continent is adding to its overhaul/exchange pool so



Rockwell Collins

base and the introduction of new products. The customer support team is enhancing the customer outreach program, in response to post-support surveys and feedback. "We are working to enhance our overall response capability for the global market to provide assistance 24/7/365, regardless of time zone or country," said Bruce Bell, ICG's director of customer service and product support.

Mid-Continent Instruments and Avionics

Mid-Continent Instruments and Avionics is celebrating its 50th year in business as a manufacturer and repair and overhaul center for instruments, avionics and power solutions such as True Blue Power backup battery systems and FAA-certified lithium-ion main-ship batteries.



Mid-Continent Instruments and Avionics

it can provide same-day shipping for AOG customers, the company noted, "without additional fees for expedited service (during normal business hours only)." Global technical support is available through authorized warranty service centers in Germany and Australia.

Rockwell Collins

Last fall, Rockwell Collins opened its new Service First customer support center for Commercial Systems, which provides a single point of contact



Thales

for customers. The center has resulted in lower turn times for in-service and AOG issues, according to Rockwell Collins, "through better technology, training, collaboration and situational awareness for Rockwell Collins support specialists."

The company's Service First app is now compatible with all Apple iOS devices and offers direct access to customer support, sales and marketing resources, including the ability to submit technical support requests, locations of service centers and dealers.

Rockwell Collins has added assets to its global asset management exchange pools and expanded training for its customer support engineer network and authorized dealers as new products enter service. These include more platforms for the Rockwell Collins Pro Line Fusion avionics in the Bombardier Global 5000 and 6000 and Gulfstream G280 and the new Embraer Legacy 500 as well as avionics in Boeing's 787 and the Airbus A350XWB.

Sandel

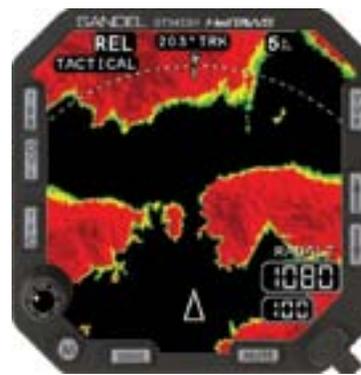
Sandel Avionics conducts annual satisfaction surveys and says its average scores from customers and dealers are 4.6 out of 5.0. Feedback from surveys prompted Sandel to streamline its repair processes to accelerate turn times. The goal is to turn around repairs in five days or fewer. Sandel uses Salesforce tools to track and maintain customer support records "to continually improve the customer experience."



Universal Avionics



TrueNorth Avionics



Sandel

Thales

Thales provides global service from three hubs, in France, New Jersey and Singapore, which act as nodal points supported by five repair centers and 22 support centers at major airports. According to Thales, "Our service philosophy is to ensure that any piece of equipment on any airplane under our care is monitored, kept track of and if a fault is recognized to be imminent, a replacement or repair can be made available on that plane within 12 hours, before a fault even starts affecting the system."

Thales serves 800 operators

and delivers 60,000 pieces of equipment annually. The Thales Repair-By-The-Hour program supports 2,000 aircraft.

TrueNorth Avionics

TrueNorth's returned materials authorization and customer support functions have been integrated into one organization with improved support-tracking capabilities. This will allow TrueNorth to introduce new warranty programs, guaranteed turn times and other support enhancements, the company noted. Support functions have been improved with the addition of On Course, TrueNorth's revamped online program for dealers and associates, which includes technical and commercial documents.

TrueNorth has also hired another customer support representative with extensive avionics experience.

Universal Avionics

Two promotions during the past year have bolstered the Universal Avionics customer service experience. Ric Miller is now manager of technical and field support and Robert Nierenhausen was promoted to manager of customer service and warranty. Miller oversees the company's field service engineers, and their job is to support Universal Avionics products and customers. Nierenhausen manages the customer service functions for the Universal Avionics repair station, including AOGs, repair scheduling and returns, loaner, rental and exchange units. □