



2007 AIN PRODUCT SUPPORT SURVEY

PART TWO | AVIONICS

by Stephen Pope

Garmin edged out Universal Avionics for the top spot in this year's avionics product support survey, finishing in first place in five of seven categories, including overall product reliability. But Universal kept it a close race by winning two categories and finishing in second place in four others. In fact, if not for a low ranking in the category for cost of parts, Universal might have ended up with the highest overall score in this year's survey.

A mere 0.09 points separated Garmin and Universal Avionics in the rankings on a scale where a 1 was judged to be inadequate and a 10 excellent. Garmin finished with an average score across all categories of 7.88 points compared with Universal's 7.79. Both manufacturers scored higher than 7 in every category except for the 6.65 Universal notched in the parts pricing category, where Garmin scored an industry-best 7.16 points.

The survey results were almost a carbon copy of last year's rankings in terms of where manu-

facturers finished, with Honeywell's Bendix/King the only one that managed to show an improvement. However, because Safe Flight qualified for the survey this time around based on the total number of responses received, Bendix/King moved up just one spot to eighth place. Filling out the top finishers from third through seventh place were Rockwell Collins, Safe Flight, Avidyne, AirCell and Honeywell. Shadin came in ninth and L-3 Avionics Systems this year dropped in the rankings to 10th place, trailed by Airshow (Rockwell Collins), MagnaStar, Meggitt/S-Tec and Thales. Last year's lowest-place finisher, Trimble, dropped out of the rankings after failing to garner the minimum number of needed responses.

All the manufacturers showed improvements in their scores this year, but that's mainly a consequence of changing the rating scale from 1 to 10 (instead of 1 to 9) to match AIN's annual FBO survey. In conducting this year's survey, we asked thousands of flight department managers, chief pilots, line pilots, maintenance managers and tech-

nicians to rank avionics manufacturers in seven categories: parts availability; parts cost; AOG (aircraft-on-ground) response; warranty fulfillment; technical manuals; technical reps; and overall product reliability. Around 1,600 participated in the survey, with 1,450 filling out the whole survey. Avionics manufacturers not mentioned in this report did not receive the minimum number of survey responses to qualify for inclusion.

Garmin

Judging by respondents' comments, Garmin fares well in the annual AIN avionics support survey (it has finished in first place each of the last four years) because parts are easy to come by, they're relatively inexpensive and, probably most important, the company's products hardly ever seem to break. The only consistent criticism leveled at the manufacturer centered on the fact that units must be shipped back to the factory in Olathe, Kan., for repairs or upgrades. But by and large, pilots and mechanics were effusive in their praise for Garmin's products, judging the quality as good to excellent and support among the industry's best.

Garmin's G1000 avionics system has yet to enter the ranks of corporate aviation in appreciable numbers (just a handful of Citation Mustangs and King Air C90s are flying with the all-glass system), but the positive reactions so far appear to indicate that Garmin's reputation for reliability has carried over from panel-mount GPS receivers, VHF navcoms, transponders and audio panels to its fully integrated cockpits.

One example of how Garmin has managed to cement a reputation for good reliability is the case of the GWX 68 weather radar. Based on a 20-year-old Bendix/King design that Garmin acquired the rights to from Narco in 2000, the radar underwent multiple design changes after engineers identified more than a dozen common failure points attributable to the original product. Based on those changes, the GWX 68 radar performs better than the original and is now as reliable as any on the market, users say.

Universal Avionics

Clearly, the secrets to Universal Avionics' success in AIN's annual product support survey hinge on the manufacturer's exceptional technical advisors and an overall commitment to serving customers' needs. Universal finished in first place in the categories relating to technical representatives and AOG response. The company placed second in four other categories and third in another.





Universal 1E FMS

In written responses, pilots and mechanics almost always had positive things to say about Universal, a fact that should be especially gratifying to support personnel at the Tucson, Ariz. company, given respondents' willingness to criticize manufacturers that they deem to have been providing less than stellar support. The comments speak for themselves:

"They have their stuff together at Universal," wrote the chief pilot for a King Air 200 operator based in the Midwest, who added that the response he receives from Universal support personnel is always fast and accommodating. "The best support I've seen anywhere," remarked the chief pilot for a mid-Southern Citation operator. "They are responsive and will do whatever it takes to get you going again," commented a Learjet 60 chief pilot. "You call them and they jump," added the chief pilot for a European corporate King Air operator.

A number of pilots related stories about avionics problems they faced when venturing far from home base and the support provided by manufacturers. A Hawker 800XP captain for a California insurance company recalled the time he and his copilot landed at Teterboro Airport in New Jersey at 10 p.m. with an FMS problem and had the issue remedied in time for a



7 a.m. departure to Europe the next morning. "We were very pleased with the support Universal Avionics provided" that night, he wrote.

Negative comments directed at Universal Avionics centered mainly on the inability to upgrade certain older flight management systems for WAAS, and what some perceived as a slow response to the FAA's AC 90-100 advisory circular dealing with revised Rnav standards.

Rockwell Collins

Rockwell Collins held onto the third spot in the survey for the second year in a row thanks to strong

showings in the categories for AOG response, warranty fulfillment and overall product reliability. Flight department personnel were particularly complimentary of Rockwell Collins when recounting the smoothness of warranty replacement transactions.

"They keep excellent records of what units are under warranty by serial number," noted the maintenance manager of a corporate flight department that operates a Challenger 604, Global Express XRS and Hawker 800XP. "You never see any type of paperwork from them other than the 8130 [maintenance release form]. You also get a

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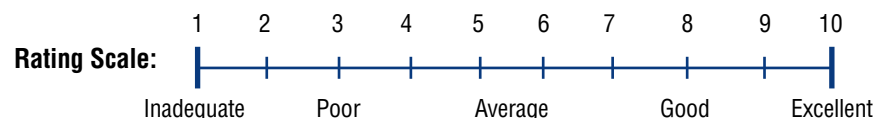
2007 RATINGS

Manufacturers are listed in the order of their 2007 overall averages.

	2007 OVERALL AVERAGE*	2006 OVERALL AVERAGE*	PERCENTAGE CHANGE*	PARTS AVAILABILITY	COST OF PARTS	AOG RESPONSE	WARRANTY FULFILLMENT	TECHNICAL MANUALS	TECHNICAL REPS	OVERALL PRODUCT RELIABILITY
Avionics										
GARMIN	7.88	7.18	9.75%	7.99	7.16	7.64	8.06	7.88	7.62	8.62
UNIVERSAL AVIONICS	7.79	7.01	11.12%	7.87	6.65	7.89	7.99	7.61	7.88	8.51
ROCKWELL COLLINS	7.49	6.95	7.77%	7.56	6.33	7.53	7.86	7.34	7.55	8.17
SAFE FLIGHT	7.47	N/A	N/A	7.55	7.13	7.17	7.60	7.06	7.29	8.26
AVIDYNE	7.44	6.93	7.36%	7.50	6.75	6.74	7.77	7.47	7.42	8.09
AIRCELL	7.41	6.69	10.76%	7.58	6.84	7.49	7.72	6.96	7.13	7.90
HONEYWELL	7.27	6.61	9.98%	7.43	6.04	7.33	7.60	7.16	7.38	7.84
HONEYWELL (Bendix/King)	7.12	6.26	13.73%	7.19	6.19	7.06	7.44	7.28	7.06	7.63
SHADIN	7.04	N/A	N/A	7.05	6.53	6.89	7.49	6.76	6.67	7.67
L-3 AVIONICS SYSTEMS	6.92	6.61	4.69%	6.86	6.25	6.66	7.20	6.73	6.81	7.68
AIRSHOW (Rockwell Collins)	6.87	6.23	10.27%	6.86	6.03	6.70	7.24	6.70	6.98	7.50
MAGNASTAR (Supported by Teledyne Controls)	6.24	6.09	2.46%	6.24	5.60	6.07	6.49	6.24	6.02	6.86
MEGGITT/S-TEC	6.06	5.87	3.24%	6.33	4.93	6.03	6.67	5.98	5.98	6.43
THALES	5.87	5.74	2.26%	5.93	5.17	5.84	6.05	5.75	5.95	6.40

* Ratings in previous surveys were based on a one-to-nine scale. This year's survey scale is based on one-to-10.

Bold type indicates the highest rating in each category.





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no-questions-asked free loaner when your unit is in for repair.”

Operators also praised Collins for being “very responsive to AOG issues” and “superb when we have need” for a response to an AOG situation.

Hurting Rockwell Collins in the survey, however, were the delays some say they are experiencing when trying to obtain certain replacement parts. Not surprisingly, many lamented the fact that parts for older avionics are becoming harder to find, but there were also a number of complaints focused on long lead times for Pro Line 21 and IDS-3000 replacement components. A CJ3 operator recalled having to wait four months to add an HF radio to the airplane’s Pro Line 21 system, with the chief pilot commenting that the delay was “unacceptable for such a new avionics package.”

Some corporate operators suggested that Collins might be growing too big too fast, and as a consequence is spreading its resources thin. “Rockwell Collins seems to have outgrown itself,” noted a GIV-SP mechanic. “They need more support staff.” Still another, the director of maintenance for a Challenger 601-3A operator,

said the apparent practice of “farming their production and repair services out to vendors has a noticeable impact.”

Honeywell

Honeywell finished in seventh place in this year’s survey, with scores generally in the low to high 7s except for the 6.04 it received in the parts cost category. Based on the new scale used this year, Honeywell performed about as well as it did in last year’s survey, when it finished in sixth place overall, with scores generally in the 6s. If not for the inclusion of Safe Flight in this year’s survey, Honeywell would have remained in the same spot as last year.

Operators praised Honeywell’s SPEX avionics exchange and rental program, lauding it for excellent availability and fast turnaround times. “Honeywell SPEX is the only department in that vast organization that knows how to operate,” said the director of maintenance for a Western-based Gulfstream G550 operator. But this same respondent complained about Honeywell’s high prices. “When the airplane goes off warranty it will be interesting to plan a budget. The parts are extremely expensive.” The director of maintenance

for a Challenger 601-3R operator smelled a conspiracy with regard to pricing: “The cost of parts seems purposely excessive to the point that they are promoting their service programs,” he wrote. The chief of maintenance for a GIV-SP operator had another theory on pricing: “Honeywell is proud of its products and it doesn’t mind charging for them.”

A number of written comments about Honeywell support and technical reps were quite positive. A Challenger 601-3A operator said of Honeywell’s AOG response, “Excellent, and that is our number-one priority in avionics support.”

Commented a G550 operator, “They have become a lot better in this area.” The chief of maintenance for a Midwest Global Express XRS operator said Honeywell support has been stellar across the board: “My local rep goes above and beyond any time I call. It doesn’t matter which Honeywell product I have a problem with—avionics, APU, engine—if he doesn’t have the answer readily available, he gets it. [He] will even help troubleshoot electrical problems with the Global. Nobody better.”

Still others said they relied on support directly from the airframe manufacturers and rarely if ever spoke with a Honeywell rep about an avionics issue. Others said Honeywell reps are hard to reach. “We have complained for decades that there is not enough Honeywell support in Southern California,” wrote one maintenance manager.



“The reps cover a huge product line and are stretched too thin.”

Honeywell’s Bendix/King division in Olathe, Kan., meanwhile, made some strides this year, finishing higher than its parent division in three categories, including overall product reliability. It faltered somewhat in the categories for technical reps and AOG response, however, and as a consequence wound up in eighth place. Bendix/King finally appears serious about competing with Garmin (it recently introduced a panel-mount GPS navigator that some insiders are calling a Garmin GNS 530 killer), and it will be interesting to see how it performs in future product support surveys.

Others

Safe Flight, Avidyne, Shadin and L-3 Avionics Systems all appear to be doing a good job supporting their products based on survey scores and written responses. Safe Flight and Shadin products seem to be regarded as particularly reliable, with a number of respondents saying they have never had to return a part or deal with a warranty issue. Once again this year, Avidyne’s overall average score was hurt by low numbers in the AOG response category, but respondents judged overall reliability to be good.

Respondents complained about poor parts availability and high parts prices for Airshow products, but some said prices have eased down and support has improved since Rockwell Collins bought the product line. Others com-

plained that their older Airshow equipment has become outdated or obsolete, with one pilot writing that the difficulty in obtaining parts will cause his operation “to seriously shop around for other options.”

The bottom three finishers on this year’s survey each are experiencing product support difficulties that won’t be easy to cure. Verizon is shutting down the MagnaStar air-to-ground phone service by the end of next year, meaning there’s little incentive for the parties involved to continue supporting that product line. Meggitt/S-Tec has undergone management shakeups as it focuses on the introduction of the Alliant cockpit upgrade through a partnership with Avidyne, but the company hasn’t made product support a focus of its initiatives.

Last-place finisher Thales has made a real effort to enhance its support for its airline customers (it opened a state-of-the-art support center in Seattle recently), but the improvements have yet to be felt by corporate operators. Parts availability has been a particular headache, with a maintenance tech for a major East Coast corporate operator that flies a pair of Challenger 604s and a pair of Global Express XRSes complaining Thales support is “nonexistent. Call France.” □

This year’s survey was devised by AIN’s editors and designed and administered by Newtown, Conn.-based Forecast International in full collaboration with AIN. The results from the aircraft portion ran last month and those from the engine portion will run next month.

