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Multiple Players Optimize Opportunities with Used Serviceable Avionics
The rising market is sparking interest in parts-trading among avionics OEMs.

Paul Seidenman, David Spanovich | Aug 16, 2018 | Printed headline: Avionics Actions

The market dynamics for used serviceable avionics are changing as more airlines pursue cost-cutting measures, more aging aircraft are likely to be retired, and the avionics OEMs play an increasing role.

For starters, this is a growing business. According to ICF in London, the global market for used serviceable avionics was estimated at approximately $400 million in 2017 and predicted to grow at a 3.5% compound annual growth rate (CAGR) to $600 million by 2027. “This will be driven primarily by cost-savings incentives and product availability,” says Richard Brown, an ICF principal. In comparison, ICF estimates the overall air
transport avionics MRO market was $1.8 billion in 2017, with growth projected to $2.6 billion by 2027, at a CAGR of 3.9%.

The rising market has sparked more interest in parts-trading among the avionics OEMs says Russell Bonnell, managing partner at Talon Air Partners in Pompano Beach, Florida. “Parts-trading is a significant piece of the aftermarket, which previously had not been the OEMs’ focus,” he says. “But because of cost-cutting pressure from their airframe customers, the OEMs’ previous business models have been turned upside down and have severely challenged the bottom line on the sale of new equipment. So they have recently introduced a new focus on the aftermarket for used serviceable parts distribution and are capturing an increased share of MRO services.”

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In that regard, ICF’s Brown points out that avionics OEMs are buying back older inventories from the airlines in order to promote new equipment sales. “The OEMs will then sell their customers newer, more capable avionics, putting the legacy equipment on the surplus market,” he says.

Others share a similar view. Thomas Batteux, central trading manager at Lufthansa Technik, says that avionics OEMs “have become very aggressive in the used market” over the last five years. “Some have started to buy used avionics they manufactured just to take them off the market and reduce availability,” he says. “This strategy is generally more apparent before a new product is introduced.”

Companies dealing in used avionics indicate that demand extends over a wide range of equipment. For instance, Scott Holdman, vice president for airframe parts supply at AAR...
Corp., says that among the used serviceable avionics most in demand, a few especially stand out. They include air data inertial reference units, traffic collision avoidance systems (TCAS), multi-function display control units, and weather radar transceivers. “Used serviceable avionics are a cost-saving measure,” he says. “Most avionics, if purchased new, carry with them high list prices compared to what used serviceable units trade for in the open market.”

Shawn Bergquist, director of Intertrade, a Rockwell Collins-owned international parts-trading company, reports that global landing units (GLU) are among the most sought-after used serviceable avionics by commercial airlines. “That is followed by components needed to meet the [automatic dependent surveillance-broadcast (ADS-B)] Out mandate,” he notes, adding that TCAS 7.1 hardware and software are ranked “third in demand,” due to regulatory requirements for upgrades to that version.

Over the past three years, says Bergquist, much of Intertrade’s business has involved used avionics products still produced by Rockwell Collins, such as flight displays, radio altimeter antennas, transponders, TCAS, GPS, landing units and transceivers. Intertrade also markets non-Rockwell Collins avionics, of which 90-day underwater locator beacons, cockpit voice recorders, digital flight data recorders, air data modules and automatic direction finders are leading sellers.

Asked about the market for cockpit displays using cathode ray tubes (CRT), Bergquist says demand is still there but no longer very strong. “For CRTs, most of what we see is for the [Boeing] 737, 757 and 767 platforms, but due to the amount of these aircraft that have been torn down, there is currently a very good supply of these products out there.”

For AJW Group, the heaviest demand for refurbished avionics is coming from operators of the Airbus A320ceo (current engine option) models produced in the last 5-10 years. “Beyond that [age group], we are not seeing as much demand, since the older A320s have
been mostly retired and torn down,” says Conrad Vandersluis, the UK-based supplier’s senior vice president for strategic material and asset management.

For the A320ceo, says Vandersluis, the most sought-after items are the displays—whether CRT or later non-CRT—along with elevator and aileron computers and flight-control units. “The main drivers for installing those systems are upgrades, as well as obsolescence of equipment already onboard,” he explains. “For example, airworthiness directives are now being published which will make the older flight management guidance computers obsolete in the next two years.”

But Vandersluis cautions that for the A320ceo family, “fit”—the capability to accommodate replacement avionics—could present issues, given that the aircraft family has undergone at least three evolutions of avionics and design changes. Fit has not become a challenge for used avionics retrofits for the Boeing 737NG, despite nearly two decades of production, he notes.

“Fit is pretty common for the 737NG over that length of time,” he says. “It’s true that certain displays have undergone an evolution, but there have been no major changes in fit—regardless of the aircraft’s age. As a result, supply is readily available.”

Vandersluis also says the supply of avionics for the 777 is currently greater than demand, which translates into lower prices. “And the same thing is happening with the 747-400s, as retirements and teardowns have increased avionics supply for those aircraft well above demand,” he notes.
As for the Airbus A380, the first of which has been retired and slated for dismantling, Vandersluis says: “The A380 continues to be operated by a very small number of airlines, which are mainly supported through OEM contracts. Because of this, there isn’t much of a market for used avionics on that aircraft—at least not at this time.”

In spite of the fact that the 747-400 fleet is dwindling, James Cobbold, global sales manager for UK-based Air Salvage International, says there is still a used avionics market for the aircraft. However, he emphasizes that as more go out of service, there will be a decrease in parts removals.

“Where there will be a more robust [used serviceable parts] market will be for the A330, since that fleet has not been parted out in large numbers,” Cobbold explains. “In fact, most of the A330s produced are still in service. It has been years since we have parted one out.”

More teardown activity on the 777—as well as the A330—was noted by Talon Air Partners’ Bonnell. “Our radar is beeping on the 777-200 and the A330-200 and -300,” he says. “And, unless they are converted to freighters, there will also be more retirements of the 747-400—specifically for dismantling.”

A big surprise concerning projected retirements, says Bonnell, is the Boeing 767, which he reports has had a revitalized life due to contracts between Amazon and airfreight carriers. “Two years ago, we thought that more 767s would be dismantled, but Amazon has changed that,” he says.

Still, he notes that uncertainties remain, such as whether rising fuel prices will force more older aircraft to be withdrawn from service, thus affecting demand for used avionics. If fuel costs continue to escalate, he says, the industry may see an upswing in the retirement cycle, possibly over the next three years. This, in turn, will increase available assets. “The net effect will be an increase in the supply of used serviceable avionics, which will decrease values,” Bonnell says.
AJW Group’s Vandersluis is slightly more optimistic. “With the slow rising fuel prices, there will probably be a slow increase of older aircraft retirements, rather than the deferring of new aircraft deliveries, leading to an increase in the supply of available avionics,” he says. “Still, demand for aircraft continues to be very strong, as some of the older fleets will remain in service. That means there will continue to be a healthy market for used serviceable avionics.”

At Lufthansa Technik, Batteux observes that while there has been a steady increase in used avionics on the market, rising fuel prices have “not yet had a significant impact” on the airframe retirement rate. Nonetheless, he reports that Lufthansa Technik expects a “dramatic” increase in retirements in the coming years.

“We still see active and competitive markets for older-generation avionics, particularly for the A320 family,” says Batteux. “Many avionics can be upgraded to compete with the latest and greatest versions. In fact, some have remained virtually unchanged for several years and can be found both on newer and older-generation aircraft.”

AAR’s Holdman also has a positive view of the used avionics market, even if more fuel-inefficient aircraft are retired. “From a rotable parts perspective, I do not think there will be a huge short-term impact on prices. as most of these perceived older aircraft types have been hitting the market for the last several years,” he says.

However, change is underway with the digital revolution. Intertrade’s Bergquist provides one example.

“Over the last 5-10 years, the used serviceable avionics market has gone from an analog to digital suite of products, which have been modified with the latest technology,” he explains. “Going forward, we may see less of a hardware and more of a software or ‘cards’-type aftermarket. This evolution would be consistent with the technology improvements
associated with advanced graphics, touch screens and voice-activated commands in the latest avionics.”