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AVMARK INC.®

WORLDWIDE AVIATION MARKETING AND MANAGEMENT SERVICE

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Newsletter

Market Comment

USA

EXECUTIVE OFFICE

PO Box 189
Vienna, VA 22183 – USA
Tel: +1-240-582-0119
Fax: +1-202-618-6267
enquiries@avmarkinc.com

PUBLISHING OFFICE

523 Stephens Avenue
Missoula, MT 59801 – USA
Tel: +1-406-274-3521
mrmotomontana@msn.com

EUROPE

AVMARK ESPAÑA

Gran Via de les Cortes
Catalnes 712, 6, 5
Barcelona 08013
SPAIN
Tel: +34-93-245-0659
enquiries@avmarkinc.com

LATIN AMERICA

AVMARK-SLEM S.A.

Avda. Carlos Julio Arosemena Km 2.5
C.C. La Linea, Oficina 3
Guayaquil
ECUADOR
Tel: +593 4 222 0640
Fax: +593 4 220 6726
Cell: +593-9-979-2586
enquiries@avmarkinc.com

ASIA & ASIA-PACIFIC

AVMARK ASIA-AMS

70 A Boat Quay
Singapore 049859
Tel: +65-65-38-38-35
Fax: +65-65-38-38-10
enquiries@avmarkinc.com

The A330 Freighter is Airbus' Only Cargo Program and it is not doing very well. Sales of the A330-200F rose to a high of 77 before the recession and weak recovery impacted the international cargo market. As of September 1, the sales of A330-200Fs had shrunk to 52, with 14 of the orders being filled. The A330-200 Freighter was launched in 2007, just when the global economy crashed. This did not deter many leasing companies, which ordered dozens of the plane. Over the past two years, the economy has improved, but **IATA** reports that world cargo traffic shrank 2.6 percent in the last year. In the past 12 months, Asian/Pacific freight ton kilometers dropped by 7.3 percent, European traffic fell by 3.8 percent, and the North and South American shrank by an average of 1.35 percent. This is causing the leasing companies to re-think their business plans. An Indian start-up airline, **Flyington Freighters** vanished in 2011, and took its dozen A330F orders with it. More recently, **MatlinPatterson** (the parent of **World Airways**) cancelled its six orders and **Intrepid Aviation Group** exchanged eight of its 20 A330F orders for passenger A330s. So far, **Oak Hill Capital/Avion** has retained its eight orders. **Aircastle** leased three to **Hong Kong Airlines** and **BOC** will lease its five A330Fs to **Hong Kong Airlines** and **Yangtze River Express** — two of which have been delivered. It is not all doom and gloom for the A330-200F program; several customers have placed repeat orders for the plane. **Etihad Airways** ordered two more A330Fs in January, after it took delivery of the two it ordered in 2007. **Synergy Aerospace** (the parent of **Avianca**) ordered three A330Fs, adding to four the airline purchased in September, 2011. **Turkish Airlines** and **MASKargo**, the cargo arm of **Malaysian Airlines**, also added to initial orders. In the face of a shrinking A330-200F order book, **Airbus** launched its **EADS EFW A330-300** passenger-to-freighter (P2F) conversion program in conjunction with **ST Aerospace**. The first will be ready for delivery in 2016. **Airbus** was slow to launch the A330P2F, even as potential customers demanded the program. It seems the manufacturer was reluctant to cannibalize new production A330 freighter sales. If **Boeing's** new-build freighter and Passenger to Freighter programs are a valid example, then **Airbus** has little to fear from an A330P2F program depressing sales of new A330Fs. **Boeing** sold 694 747-400s from 1989 to 2006, and of that total, 227 were -400Fs and -400 Combis, capable of carrying freight. Since the launch of the **Boeing Converted Freighter (BCF)** program in 2004, and the **Bedek Special Freighter (BDSF)**,

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many of the combis and a number of passenger planes have been converted into full freighter configuration, but the more than 50 conversions have come no where close to the number which were factory built. **Boeing** also launched a 767-300 BCF conversion program in 2007, and that has not slowed the sale of factory-built 767-300Fs. The **Airbus** P2F program will use the earliest 209-ton MTOW A330-300s, (now 19 years old) which can carry 60 to 61 tons of cargo for approximately 2,300 nautical miles (nm). The A330-200F carries 65 tons of cargo for more than 4,000 nm. Eventually, airlines will release newer 233-ton MTOW A330-300s which have a range of 3,600 nm, and A330-200s, which might have a payload of 59 tons and a range of more than 4,000 nm. Airlines, such as **Qatar Airways**, pushed for the P2F program, but so far they have not put up their money and placed a launch order. One of the problems is that the passenger A330 is very popular and very few entered the secondary or tertiary market. The price is still too high to justify the conversion. It is expected that airlines will retire their oldest A330s when the first A350s are delivered in 2014 forcing down those planes' residual values. So far, the big package express companies, **FedEx** and **UPS** seem content to operate their 1980s A300Fs and A310Fs on short to medium haul routes. **FedEx** operates 71 A300-600Fs (delivered between 1988 and 2007) and 32 A310Fs (1982 to 1992 models), while **United Parcel Service (UPS)** flies 53 purpose-build A300F-600s delivered between 2000 and 2006. The **FedEx** A310Fs are getting ripe for replacement, and all but six of its A300s were delivered before 2000. **Airbus** recognizes that **FedEx** was the biggest customer for A300 and A310 conversions, and that the A330-300F has nearly 30 percent more volume than its older sister-ships. The A330P2F may ultimately replace them. An **Airbus** spokesman said the A330P2F will be around for at least 20 years and for much of that time it will be the only player in the medium wide body sector. **FedEx** also operates 76 MD-10Fs, which are close to retirement. The airline chose to order 27 new 767-300ERFs in December to replace nearly half the MD-10Fs. The U.S. package carriers are not the only possible market for the A330P2F; air freight demand in China, Southeast Asia, Russia and Latin America will grow as trade within those regions increases. **Airbus** reported that the freighter fleet in the U.S. ballooned fivefold between 1980 and 2000, while China and India are at the very beginning of its growth curve, and they will potentially grow much bigger. When the global economy recovers, the A330F and A330P2F will be very successful, but the question is when will we see a full recovery?

Airbus Orders

Airbus booked orders for 48 aircraft in July and many of the sales for the A320 and A330 families were announced at the **2012 Farnborough Airshow**. The manufacturer delivered 47 new aircraft, including three A380s during the month. Russia's **UTair** ordered 20 A321s. This was the largest single sale of the A321 to a carrier in the country and the first time **UTair** has ordered **Airbus** aircraft. Bhutan's national airline **Drukair** purchased a third A319. **Arkia Israeli Airlines** became a new Airbus customer with its order for four A321neo aircraft. **Airbus** sold 23 widebody A330 jetliners during the month. The **CIT Group** ordered 10 additional A330 Family aircraft, and it placed the first commitment for the longer-range, 240-ton takeoff weight variant of the A330-300. **Synergy Aerospace** purchased six A330-200 passenger planes and three A330-200F freighters for **AviancaTaca**. **Afriqiyah Airways** confirmed the purchase of three A330-200s. It signed a commitment for the planes in April 2012. Also, an unnamed private customer added the A330-200 that **AirAsia X** cancelled. This activity brought **Airbus'** total net orders to 270.

Airbus Orders, Deliveries and Backlog July 2012

JUL ORD	JUL DEL	JUL CANX	TOTAL ORD	TOTAL DEL	BACK LOG
-0-	1	-0-	81	78	3
1	3	-1	1,519	1,338	181
-0-	27	-3	5,761	3057	2,704
24	3	-3	1,175	727	448
23	10	-1	1,215	897	318
-0-	-0-	-0-	377	375	2
-0-	-0-	-0-	548	-0-	548
-0-	3	-0-	257	80	177
This Month			This Year	BL	
48	47	-8	270	326	4,381

Airbus sold 11,749 aircraft and delivered 7,368 as of July 31, 2012.

Total orders, deliveries and backlog include cancellations and order changes.

Airbus delivered one A380 each to **Emirates**, **Malaysia Airlines** and **Singapore Airlines**, raising the jumbo jetliner's delivery total to 80. The manufacturer put 10 A330s and 34 A320 Family jetliners into the hands of customers, bringing year-to-date deliveries to 326 aircraft.

Synergy Aerospace ordered six A330-200 passenger and three A330-200F freighter aircraft in July. The parent of **AviancaTaca** will make its engine selection at a later date. More than 1,200 A330 Family aircraft have been purchased, including 55 A330-200Fs. Thirteen -200Fs and 884 passenger, tanker-transport and VIP aircraft have been delivered.

August-September 2012

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UTair, one of Russia's top-three carriers, purchased A321 aircraft fitted with CFM56 engines. The airline's A321s will feature a single-class cabin that will seat 220 passengers. **UTair** plans to operate the new aircraft on charter flights to popular leisure destinations. The airline currently operates a fleet of approximately 200 Western and Russian aircraft to 60 domestic and 40 international cities. It also purchased 33 Boeing 737-800s and seven 737-900ERs in September 2011.

The CIT Group ordered another 10 more A330 Family aircraft, worth \$2.3 billion at list prices. The lessor confirmed a previous order for five A330-300s and signed a new agreement for five additional A330-300s. **CIT** was the first customer to buy the newly launched, longer-range A330. The first of the 240-ton MTOW A330s will be delivered in mid-2015. To date, **CIT** has ordered 51 A330s.

Airbus booked 114 new orders in August, which compensated for the unremarkable number of sales announced at **Farnborough**

Airshow in July. **Airbus** added new customers for its A320neo and A350-1000 programs. The manufacturer provided 38 aircraft to customers, including the first A330-200F to a new operator, **MNG Airlines**, Turkey, and the 14th A380 to **Emirates**. Total A320 Family sales surpassed 8,600 mark, due to **Philippine Airlines'** contract for 34 standard A321s and 10 A321neo aircraft, plus 10 A330-300s. China's **ICBC Financial Leasing** ordered 30 standard A320 and 20 A320neo jetliners. **ICBC Leasing** is the first Chinese customer for the A320neo. Completing the month's new sales, **Cathay Pacific** purchased 10 A350-1000s, and converted 16 of its outstanding A350-900 orders into the -1000 version. Hong Kong's flag carrier is the fifth customer for the A350-1000. The August transactions raise **Airbus'** total net orders to 384 aircraft.

ICBC Financial Leasing purchased A320ceo (current engine option) and 20 A320neo (new engine option) aircraft in August. The aircraft purchase agreement was signed in the Great Hall of the People during German Chancellor **Angela Merkel's** visit to Chinese Premier **Wen Jiabao** in Beijing. The

Airbus Orders, Deliveries and Backlog

August 2012

AUG ORD	AUG DEL	AUG CANX	TOTAL ORD	TOTAL DEL	BACK LOG
A318					
-0-	-0-	-0-	81	78	3
A319					
-0-	2	-0-	1,519	1,340	179
A320					
50	21	-0-	5,811	3078	2,733
A321					
44	9	-0-	1,219	736	483
A330					
10	5	-0-	1,225	902	323
A340					
-0-	-0-	-0-	377	375	2
A350					
10	-0-	-0-	558	-0-	558
A380					
-0-	1	-0-	257	81	176
This Month			This Year		BL
114	38	-0-	384	364	4,457

Airbus sold 11,863 aircraft and delivered 7,406 as of August 31, 2012.

Total orders, deliveries and backlog include cancellations and order changes.

contract was a part of a series of Europe-China agreements. **ICBC** is a new Chinese leasing company and the first Chinese customer for the A320neo. The A320neo will enter service in 2015 and incorporates latest generation engines and large Sharklet wing tip devices. By the end of July 2012, 15 Chinese airlines operated more than 700 A320 Family aircraft.

Philippine Airlines (PAL) ordered 54 **Airbus** aircraft, including 34 A321ceo, 10 A321neo and 10 A330-300s. Deliveries of the A321ceos and A330s will start in 2013. The first A321neos will arrive in 2016. The airline launched a major fleet modernization program with the big contract. The single-aisle A321s will operate on the airline's domestic and regional routes. The widebody A330s will fly high-demand regional routes and longer range services to the Middle East and Australia. **PAL** will announce engine selections for all the aircraft at a later date. The airline currently flies four A319s, 15 A320s, eight A330-300s, four A340-300s, five 747-400s and three 777-300s. Its low-cost subsidiary operates a dozen A320s and three 737-200s.

The Airbus Global Market Forecast (GMF) reports that German airlines will require more than 1,000 new passenger aircraft (100 seats and above) and freighters (above 10 tons of payload) over the next 20 years. This will nearly double the German fleet from the current 670 aircraft to more than 1,300 by 2031. **Airbus** forecast that airlines will acquire 690 single-aisle aircraft, more than 230 twin-aisle medium to long-range widebody aircraft and close to 100 very large aircraft. These new aircraft will be valued at \$148 billion at today's list prices. **Airbus** said, "The main drivers for this investment are the traffic growth between advanced and emerging markets as well as continued strong demand from the developed markets and the benefits that can be derived by operating the most modern and eco-efficient fleets." Germany's air travel has grown by 45 percent from 2000 to 2011. Intra-European and domestic traffic grew by more than 30 percent and travel from Europe expanded by more than 50 percent.

WORLDWIDE AVIATION MARKETING AND MANAGEMENT SERVICE

Late in September, Philippines Ordered Another 10 A330s. The airline opted for the 240-ton high gross weight version of the A330-300 that offers another 400 miles of range. The airline will be able to operate the aircraft non-stop from Manila to any destination in the Asia-Pacific region, as well as to the Middle East and as far as Honolulu in the U.S.

Cathay Pacific Airways ordered 10 A350-1000 XWB in August and converted 16 existing A350-900 orders to the larger A350-1000 type. The deal was worth \$4.2 billion at list prices. **Cathay Pacific** has now ordered 48 A350 XWB aircraft, which will be powered by **Rolls-Royce** Trent engines. The airline also has separate lease agreements to acquire two more aircraft. The A350-1000 typically seats 350 passengers in a three-class layout, and it will be capable of flying 8,400 nautical miles non-stop. **Cathay** will operate it higher-density routes, including its longest non-stop flights to Europe and North America. The first ones will be delivered in 2017.

The Largest A320 Customer, AirAsia will become the first operator of the Sharklet-equipped A320 late this year. It will take delivery of the first A320 fitted with the fuel-saving wing-tip devices by December. **AirAsia** will receive **Airbus'** flight test aircraft in 2013. That aircraft was powered by CFM56 engines and was on display at the **2012 ILA Air Show** in Berlin. **AirAsia** is negotiating with the manufacturer to buy another 100 A320s, potentially worth around \$9 billion at list prices. It intends to replace the oldest of its 116 A320s with new aircraft in a couple of years. The new order is designed to fuel the growth of what is fast becoming a cluster of related airlines under **AirAsia**. **Zaman Ahmad,**

a vice president, said **AirAsia** will also start rolling over its first A320s, depending on aircraft utilization, probably from 2014-2015. It flies the A320s at an average of 14 hours per day. The airline took delivery of its first CFM56-powered A320s in November 2005 and the average age of its fleet is eight years. **AirAsia** is currently accepting 20 A320s per year from its total order book of 375. Of that number, 103 A320s have been delivered and 272 are on back order.

Airbus and its Chinese Partners agreed to extend the **Airbus A320 Family Final Assembly Line China (FALC)** past the expiration of its original joint venture in 2016. Chinese Premier **Wen Jiabao**, German Chancellor **Angela Merkel**, much of the top management of **Airbus** and **EADS**, and 1,000 guests, celebrated the delivery of the 100th A320 Family aircraft at Tianjin, China. **Airbus** and the Chinese Government signed a Memorandum of Understanding in December 2005 to form a joint-venture to establish an A320 final assembly line in China. Construction of the Tianjin assembly line started in May 2007 and the operations started in August 2008. The first completed airplane was delivered in June 2009. The **FALC** delivered the hundredth aircraft to **Air China** in August. The original agreement between **Tianjin Free Trade Zone (TJFTZ)** and the **Aviation Industry Corporation of China (AVIC)**, holders of 49 percent of the **FALC** joint venture, and **Airbus** (51 percent) was set to expire in June 2016, when the 284th A320 Family aircraft rolled off the assembly line. The three partners did not say a lot about the new contract. Presumably the **FALC** will continue to help build down a part of the 550 A320 Family aircraft that are on order by Chinese airlines and lessors. The plant currently produces three airplanes a month and will soon ramp up production to four per month. **Airbus** hinted that the Chinese are close to ordering another 100 single-aisle aircraft. As of late September, only 20 of the backlog are A320neo aircraft. Looking forward, the **FALC** should assemble the neo aircraft on the same line as the current engine option A320s, perhaps starting in 2016. **Airbus** said that all A320s built after 2014 will be fitted with Sharklet wing tip devices, so it is assumed that **FALC** will too. The Chinese assembly line is the third to be established, after Toulouse and Hamburg. A fourth assembly line is being established in Mobile, Alabama.

Turk Hava Yollari—Turkish Airlines is looking to buy at least six A380s or 747-8Is. It will request proposals from the two major manufacturers by the end of the year, if its Board of Directors decides to go ahead. **Turkish Airlines** had wanted to buy at least 15 jumbo jets but it was discouraged from such a large order by the continued unfavorable global economic conditions. The airline is also negotiating to buy more Airbus 300-330s and of Boeing 777s. The carrier operates 186 aircraft, including 12 777s and 17 passenger A330s. **Turkish Airlines** will add another 14 planes by the end of this year and six more by December 2013.

Airbus' New Final Assembly Facility in Mobile, Alabama will begin assembly of its first Airbus A320neos in 2015 and will deliver them to **Virgin America** in the first quarter of 2016. The California-based low-cost carrier became the U.S. launch customer for the A320neo when it ordered 30 of the type in January 2011. **Virgin America's** CEO **David Cush** said the airline expected the Mobile facility to assemble all of them. The airline also ordered 30 current engine option A320s, and will accept the first one in July 2013. It will take delivery of approximately 10 aircraft a year.

Boeing Orders

Boeing Sold a Whopping 260 New Commercial Aircraft in July. Most of the orders were announced at the **2012 Farnborough Airshow**. **United Airlines** ordered 100 new 737 MAX 9s and 50 Next

Generation 737-900ERs. The deal was valued at \$14.7 billion at list prices. The first 737-900ER will enter service in 2013 and the 737 MAX 9s will be delivered between 2018 and 2022. **Air Lease Corporation (ALC)** finalized its order for 60 737 MAX 8 aircraft worth approximately \$6 billion (\$100 million each) at list prices. The lessor also signed a firm order for 15 737 MAX 9 aircraft, and reconfirmed purchase rights for 25 additional 737 MAXs. The total order is list-priced at \$7.2 billion. **Virgin Australia** finalized its firm order for 23 737 MAX 8 aircraft, and optioned four additional 737 MAXs. **EL AL Israel Airlines** signed a repeat order for two 737-900ERs late in the month. It has now ordered six of the type. An **Unidentified Customer** bought three 737-800. **Boeing** sold seven 777s during the month. **Ethiopian Airlines** purchased one additional 777-200LR (Longer Range) Worldliner in mid July. The latest plane is valued at approximately \$276 million at list price. **Korean Air** ordered two 777-300ERs valued at \$596 million at list prices. The Korean flag carrier currently operates 34 777s, including 10 777-300ERs, and now has six more 777-300ERs on order. **American Airlines** purchased another two 777-300ERs for a total of 13, they have not been delivered to date. In mid-July, one **Unidentified Customer** committed for two 777-300ERs. **Boeing** delivered 33 737s, three 747s, three 767s, five 777s and one 787 in July.

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EL AL, the Israeli national carrier finalized an order for two Next-Generation 737-900ERs in July, adding to **EL AL's** March 2011 order for four. The two-airplane order is valued at approximately \$179.2 million at current list prices. The airline operates a fleet of nearly 40 Boeing airplanes and serves more than 30 destinations worldwide. The new 737-900ERs can seat up to 215 passengers in a single-class configuration, and will replace the larger Boeing 757.

Boeing Sold Only One New Jet in August. An **Unidentified Customer** purchased one 737 Boeing Business Jet. **Qantas** cancelled 35 of its near term delivery 787-8 orders during the month. **Boeing** delivered 32 737s, two 747s, two 767s, eight 777s and four 787s in August.

Boeing July 2012 Orders, Deliveries

JUL ORD	JUL DEL	JUL CANX	TOTAL ORD	TOTAL DEL	BACK LOG
737					
253	33	-0-	10,041	7,251	2,790
747					
-0-	3	-0-	1,524	1,443	81
767					
-0-	3	-0-	1,105	1,030	75
777					
7	5	-0-	1,379	1,030	349
787					
-0-	1	-0-	859	15	844
This Month			This Year		BL
260	45	-0-	736	332	4,139

Boeing sold 22,438 aircraft and delivered 18,299 as of July 31, 2012.

**The Current Program includes sales and deliveries of 737s, 747s, 767s, 777s and 787s.
Sales totals are net, minus cancellations.**

The Manufacturer Announced Several Big Commitments for 737s and 787s in August. **Aeromexico** intends to purchase 90 737 MAX 8s and 9s, powered by LEAP-1B engines, as well as ten 787 Dreamliners, powered by GENx-1B engines. The order is estimated to be worth \$10.8 billion at list prices. **Xiamen Airlines** agreed to purchase 40 737-800s valued at \$3.5 billion at list prices. This order requires Chinese Government approval before it becomes firm. The airline plans to use the 737NGs for more international routes to meet growing passenger traffic in Asia-Pacific and China. **Xiamen Airlines** is a privately-owned subsidiary of **China Southern Airlines** and it currently operates 77 Next-Generation 737 and six 757 airplanes. The carrier plans to grow its fleet to 200 airplanes by the end of year 2020. **SilkAir** committed to order 23 737-800NGs and 31 737 MAX 8s. The airline also reserved purchase rights for another 14. **Singapore Airlines'** regional carrier has the flexibility to switch its order to other variants of the 737. Deliveries will begin in 2014 and continue through 2021. When finalized, the firm orders will be worth \$4.9 billion at list prices. **SilkAir** currently operates 21 A319s and A320s, and has three more A320s on order for delivery this year. The 737 order will double the airline's fleet and will shift the carrier away from operating an all-**Airbus** fleet. **Airbus** said its A320neo lost out to the 737 Max in the competition to win the **SilkAir** purchase because **Airbus** could not offer early slots, not because the MAX is a better airplane. **Airbus** is confident that it will maintain its sales lead in the single-aisle sector.

The 737 order will double the airline's fleet and will shift the carrier away from operating an all-**Airbus** fleet. **Airbus** said its A320neo lost out to the 737 Max in the competition to win the **SilkAir** purchase because **Airbus** could not offer early slots, not because the MAX is a better airplane. **Airbus** is confident that it will maintain its sales lead in the single-aisle sector.

In September, Air China firmed up its order of five 747-8 Intercontinental aircraft. The state-owned carrier signed a Memorandum of Understanding (MoU) for the five aircraft in March 2011 and had to wait for the **Chinese Government** to formally approve it. The order is worth \$1.8 billion (\$350 million each) at list price, but aircraft valuation firm **Avitas** estimated the purchase price to be about \$840 million (\$168 million each) after typical industry discounts. To date, **Boeing** has sold 32 747-8I passenger jets, 70 freighters, and nine VIP private jets for the royal families of Abu Dhabi (two), Qatar (two) and Saudi Arabia. The manufacturer has commitments for four passenger planes from **Transaero**, Russia, and 15 commitments from unidentified customers.

Boeing August 2012 Orders, Deliveries

AUG ORD	AUG DEL	AUG CANX	TOTAL ORD	TOTAL DEL	BACK LOG
737					
1	32	-0-	10,042	7,283	2,759
747					
-0-	2	-0-	1,524	1,445	79
767					
-0-	2	-0-	1,105	1,032	73
777					
-0-	8	-0-	1,379	1,038	341
787					
-0-	4	-35	824	19	805
This Month			This Year		BL
1	48	-35	702	380	4,057

Boeing sold 22,404 aircraft and delivered 18,347 as of August 31, 2012.

The Current Program includes sales and deliveries of 737s, 747s, 767s, 777s and 787s. Sales totals are net, minus cancellations.

All Nippon Airlines (ANA) ordered an additional 11 787-9 Dreamliners in September. The airplanes are valued at \$2.7 billion at current list prices. **ANA** has now ordered 36 787-8s and 30 787-9s. **ANA** the launch customer for the 787 Dreamliner and is now the largest commercial airline customer for the plane. The 787-9 is a slightly longer version of the 787-8 and will carry 250-290 passengers on routes of 8,000 to 8,500 nautical miles (14,800 to 15,750 kilometers).

Also in September, the **U.S. Navy** signed a \$1.9 billion contract for 11 P-8A Poseidon aircraft, which will take its total fleet to 24 and bolster the service's anti-submarine, anti-surface warfare and intelligence, surveillance and reconnaissance capabilities. (See **Military Market** on Page 20). An **Unidentified Customer** ordered one 737 late in the month.

Avolon confirmed its previous commitment to buy 10 Next-Generation 737-800s, 10 737 MAX 8s, and five 737 MAX 9s. The firm order was list-price valued at \$2.4 billion. The deal was first announced at **Farnborough Airshow** in July. With this order, **Boeing** now has 664 orders for the 737 MAX from seven customers. **Avolon** ordered a dozen 737-800s in December 2009 and took delivery of the first three this year.

Boeing's 737-900ER orders rose above 500 units in September, when a customer converted its smaller 737-700s to 737-900ERs. To date, **Boeing** has sold 537 737-900ERs to 17 customers in 10 countries. The number of -900ER orders and customers have more than doubled since January 2010. The largest Next-Generation 737 replaced the 220-seat, single-aisle 757, which ceased production in 2004. The 737-900ER is capable of flying 96 percent of the 757's current routes at a much lower operating cost. **Boeing** said the 737-900ER carries a comparable number of passengers 8 percent more efficiently than the A321.

Boeing Forecast that China will need 5,260 new commercial airplanes, worth \$670 billion at list prices, over the next 20 years. China is expected to be the world's second largest market for new commercial airplanes. **Randy Tinseth, Boeing Commercial Airplanes** vice president of marketing, said that more than 75 percent of China's demand for new planes will be for growth instead of replacement. "We expect Chinese carriers to experience rapid international expansion over the next 20 years, with an annual increase rate of 8.9 percent on average," he said. **Boeing** predicts that 1,190 new twin-aisle aircraft, such as the Boeing 777 and 787s will be delivered and they will account for 48 percent of the market in terms of price. Domestic travel in China will generate strong demand for single-aisle aircraft, and the manufacturer sees a need for 3,650 aircraft through 2031. **Boeing** delivered the first 707 to its first Chinese customer, **CAAC**, 40 years ago. Since then **Boeing** has built long-standing relationships with the Chinese government, airlines, the aviation industry and aerospace suppliers.

CCB Financial Leasing Corporation Limited (CCBFL) signed an agreement to buy 50 C919s from **Commercial Aircraft Corporation of China, Ltd. (COMAC)** in Beijing on September 19, 2012. **CCBFL** is the 13th customer for China's 150-seat medium-haul airliner. **COMAC** has won 330 total orders and commitments for the C919.

Regional Report

Bombardier Aerospace announced that a new unidentified customer placed a conditional order for five CS100 and 10 CS300 jetliners. Based on the list prices the contract is valued at approximately \$1.02 billion.

Air Baltic, Latvia, signed a letter of intent (LOI) to acquire 10 CS300 aircraft and to take purchase rights on a further 10 CS300 jetliners. A firm-order will be valued at approximately \$764 million (\$76.4 million each) at list price. The contract could be worth \$1.57 billion (\$78.5 million each) if the 10 purchase rights are converted to firm orders.

China Express Airlines converted a conditional order for six CRJ900 NextGen regional jets to a firm order in July. The airline optioned another five CRJ900 NextGen aircraft. The order was announced in July, and based on the list price, the firm order was valued at approximately \$264 million (\$44 million each) and could increase to approximately \$491 million (\$44.6 million each) if five options are taken up.

EuroLOT, Poland, converted options on six Q400 NextGen airliners to a firm order in September. The airline will operate a fleet to 14 Q400 NextGen aircraft upon delivery of the latest batch. The order was valued at approximately \$190 million at list price. **EuroLOT** ordered eight NextGen Q400s and took 12 options in March 2012. It took delivery of the first aircraft in May.

EuroLOT joined **Bombardier Commercial Aircraft's Smart Parts Program** for the Q400 aircraft. The manufacturer said the Smart Parts Program was customized to an airline's specific operational and dispatch reliability requirements and provided the airline with competitive and predictable advanced component exchange and repair costs, as well as superior availability of key components.

WestJet, Canada, confirmed its purchase of up to 45 Q400 NextGen airliners in August. The airline placed firm orders for 20 Q400 NextGens and took options on an additional 25 airplanes. **WestJet** signed a letter of intent for the Q400s on May 1, 2012. The first 20 planes are valued at \$683 million (\$34.15 million each) at list prices and the next 25 will cost \$907 million (\$36.28 million each) if the options are firmed up. **WestJet** will be the fourth airline in Canada to operate the Q400. **Bombardier** has booked firm orders for 460 Q400 and Q400 NextGen turboprops.

InterSky, Austria, signed a contract for two ATR 72-600s, valued at some \$47 million (\$23.5 million each) at list price. The first of the 70-seat ATR 72-600s will be delivered in December and the second one following in March 2013. These will be the first ATRs to be operated by an Austrian carrier. **InterSky** currently operates three 50-seat Dash 8 Q300s which are an average of 14 years old. The

Bombardier June 30, 2012 Orders & Deliveries

CRJ	Total Orders	Total Deliveries	Current Backlog
Challenger	33	33	-0-
CRJ1/2/440	1,021	1,021	-0-
CRJ700	340	332	8
CRJ900	268	257	11
CRJ1000	67	23	44
Total	1,729	1,666	63
CSeries	Total Orders	Total Deliveries	Current Backlog
CS100	66	-0-	66
CS200	72	-0-	72
Total	138	-0-	138
Dash 8	Total Orders	Total Deliveries	Current Backlog
Q1/2/300	671	671	-0-
Q400	428	406	22
Total	1,099	1,077	22

Bombardier delivered 1 CRJ and 14 Dash 8s this quarter.

introduction of the ATR 72-600s will nearly double the airline's seat capacity. The ATRs will be stationed at the company's base in Friedrichshafen, Germany, and will enable **InterSky** to propose more frequencies on main routes, such as to Berlin and Dusseldorf. **InterSky** is 49 percent owned by the **INTRO Group**.

Aer Arann announced that it was ordering eight ATR 72-600s. They will be delivered in 2013. It appears that **Caribbean Airlines/Air Jamaica** has cancelled its five ATR 72-600 orders, however all were picked up by an undisclosed customer.

ConViasa Airlines, Venezuela, purchased six EMBRAER 190 jets and placed 14 purchase options. The order was list priced at \$271.2 million (\$45.2 million each). If all of the options are exercised, the value of the contract will increase by \$632.8 million (\$45.2 million each). The first E190s are scheduled for delivery by the end of 2012. **ConViasa** was the 11th customer for the E-Jets family in Latin American and the Caribbean region. **Embraer** forecasts that the market will grow an average of 7 percent per year over the next 20 years. **Embraer** is the market leader in the Latin America/Caribbean region, where it holds 75 percent in the less-than 120-seat market.

Bombardier Forecast that the world's airlines will need 300 fewer 20-149 seat jetliners in its most recent 20-year market forecast. The loss was offset by a 400-unit increase in the under-100 seat turboprop market. The changes are due to forecast increases in the cost of fuel. The less-than-150 seat commercial aircraft market is forecast to require 12,800 turboprops and jets worth a combined \$630 billion from 2012 to 2031. **Bombardier** sees a need for 5,600 jetliner deliveries in the 60 to 99 seat category, which is 200 fewer deliveries than was forecast in 2011. In the 100 to 149-seat category, the manufacturer predicts the airlines will need 6,900 jet aircraft, 100 fewer than were forecast last year. This sector includes the Bombardier 110 to 145-seat CSeries family. There was no change in the 20 to 59-seat sector with the expectation of 300 aircraft deliveries through 2031. The U.S. **Energy Information Administration (EIA)** recently forecast a \$20 jump in the average cost of fuel over the next few years, with average prices rising from \$107 per barrel in last year's forecast to \$127 per barrel this year. For this reason, **Bombardier** anticipated that demand for turboprops would rise, and it now sees 2,832 turboprop deliveries over the next 20 years. The sector now represents 48 percent of the 60 to 99-seat aircraft market. Last year, the forecast was for about 2,500 turboprop deliveries from 2011 to 2030.

Embraer Reports Second Quarter Revenues.

The manufacturer delivered 35 commercial jets and 17 light jets and 3 large jets to the executive market in the second quarter of 2012. Revenues in the quarter rose to \$1,717.3 million and the gross margin grew from 22.4 percent in the same period last year, to 23.6 percent in the second quarter 2012. The company reported a positive operating cash flow of \$189.1 million. Adjusted net income, excluding deferred income taxes, was \$186.5 million. At the end of the first half, the firm order backlog totaled \$12.9 billion.

Order Changes and Cancellations

Airbus Order Shuffle. In July, **CIT Leasing** lost one A319 and three A320 orders. **Air Berlin** added three A320s and 11 A321 orders. **CASCG** transferred two A320 orders to **Juneyao Airlines** as A321s. **Gulf Air** picked up one A320 and one A321 order and took immediate delivery of the planes. Four A320 orders and 12 A321 orders were deleted from the "Undisclosed" category in the official **Airbus**

Orders, Deliveries and Operators webpage. **Afriqiyah Airways** cancelled three A321 orders when it ordered three new A330s. **AirAsia X** transferred one A330-200 order to **Hongkong Jet**, a private jet operator. **Singapore Airlines** transferred five of its 15 A330-300 orders to **AerCap**. The A330s will be leased back to **Singapore**. In August, **Intrepid Aviation Group** exchanged three of its 15 A330-200F orders for one A330-200 and two A330-300 orders. **CIT Leasing** swapped one A330-200 order for its 17th A330-300 order. **Cathay Pacific** dropped 16 of its 36 A350-800 orders when it ordered 26 A350-900s in August.

Boeing Order Cancellations and Changes. **CIT Leasing** swapped one 737-900ER order for a 737-800.

The Qantas Group Cancelled 35 Boeing 787-9s to help reduce its capital expenditure by \$8.5 billion. The airline's low-cost subsidiary, **Jetstar**, will still take delivery of 15 787-8s as planned. **Jetstar's** 11 A330-200s will be transferred to **Qantas'** domestic fleet. The A330s will eventually replace the flag carrier's Boeing 767 fleet. The airline retained its 50 787-9 options and purchase rights and will bring forward their delivery by two years. The first options will be exercisable for delivery in 2016. The carrier reported that it nearly completed its fleet renewal program and had taken delivery of 114 new aircraft over the past four years. **Qantas** currently has 10 737-800s and eight A380s on order. Delivery of two of the A380s was delayed by three and four years in May. The group also has 142 A320s, and 15 787-8s on order for operation by **Jetstar** and its affiliated airlines. **Jetstar's** first 787-8 will be delivered in the second half of 2013. The 35 cancelled 787-9s were valued at \$8.5 billion at list price, but **Avitas** stated the planes' true value after typical discounts was about \$4.6 billion. **Qantas** reported that it lost \$256 million in the fiscal year ending June 30.

Aeroflot apparently dropped its plan to buy another six Antonov An-148s for its subsidiary carrier **Rossiya**. The manufacturer, **VASO**, raised the plane's catalogue price to cover rising production costs. It went so far as to retroactively raise prices for the six An-148s that were already in service with the airline. **Rossiya** had been talking with **VASO** about confirming an order for another six regional jets. **Aeroflot's** director general **Valery Saveliev** said, "From the operating standpoint, they have proven to be sound aircraft. The price **Rossiya** originally paid was perfectly adequate in terms of value for money. We would have considered acquiring a further six An-148s, had their price not risen sharply. Therefore, we've put a stop to that plan."

Yakutia Airlines, Russia, operates two An-140 turboprops, and has two in storage. Finance and economics director **Valery Evdokimov** said that the airplane performs flawlessly in harsh winter conditions and is well suited to the airline in terms of operating costs, "but these aircraft are not yet built serially. As a result, their catalogue price of around \$20 million apiece is unacceptable for us." Further he said the airline negotiated with the manufacturer **Aviakor**, "in the hope of reaching a compromise on pricing until 2011, when we had to abandon plans to purchase further An-140s." **Yakutia** chose to buy ten **Bombardier** Dash 8 Q300s and four Q400s through 2016 as an alternative to the costly Russian-built An-140s. The airline expects to take delivery two Q300s and Q400s by the end

Hong Kong Airlines said it will delay delivery of six 777F cargo aircraft until after 2015 from the originally scheduled 2013-2014. The **Hong Kong Civil Aviation Department** ordered the airline to stop adding airplanes to its fleet of six A320s, 13 A330s, and five 737s due to complaints about its service standards. The aviation authority said there are no safety concerns, and the carrier can continue

flying its existing fleet. The carrier decided to cancel its business-class only flights between Hong Kong and London Gatwick in September because it could not attract enough traffic away from **Cathay Pacific**. The airline has another 24 A320s on order which will replace its three 737-300s and two 737-800s. It has seven more A330-300s, 15 A350-900s and ten A380s on order. The airline said it was reviewing its order for the A380s now that it dropped its only European route. President **Yang Jianhong** said the future of its 10-plane order will be “based on our future development and the market situation.” The carrier will now focus on serving Asian routes with its A320s and A330s. The first A380s were due for delivery in 2013. **Hong Kong Airlines** is owned by the **HNA Group** and the A380 order may be transferred to another airline within the group.

Engine News

UTair Aviation (UTair) selected **CFM International’s** CFM56-5B engines to power the 20 new A321s that it ordered at **Farnborough Airshow** in July. The engine order is valued at \$420 million, at list price. The airline will begin taking delivery of the first ones in 2013. **UTair** also signed a long-term Rate per Flight Hour (RPFH) agreement for the 40 CFM56-5B engines. Under the terms of the multi-year comprehensive maintenance program customized to **UTair’s** specific requirements, **CFM** will guarantee the maintenance cost on a dollar per engine flight hour basis, the manufacturer said.

Other A380 delays. **Airbus** had 176 outstanding orders for A380s as of August 31. The number includes five orders from **Kingfisher Airlines**, which were delayed beyond 2016 because of the Indian carrier’s financial difficulties. **British Airways** is negotiating the delay of the first of 12 A380 deliveries. The first A380 could arrive in the third quarter of 2013. **BA** suggested the delay was due to the remediation of wing cracks found in current A380s.

Embraer Lost Orders. **Finnair** dropped its final EMBRAER 190 order. **Dniproavia** cancelled its five E190s, while **Republic Airlines** terminated its last four E190s in July. **BOC** exchanged one E190 order for one E195. **Alitalia** transferred three E175 orders to **Jetscape** and one E175 order to **Air Lease Corp.** All four were delivered and leased to **Alitalia**.

Leasing Companies

GE Capital Aviation Services Limited (GECAS) will lease two Airbus A320-200s to a new customer, **Tyrolean Airways**. The A320s are scheduled for delivery in early 2013. **Tyrolean Airways** is responsible for operating all **Austrian Airlines** flights and it currently operates a very mixed fleet of nearly 80 **Airbus**, **Boeing**, and regional jet and turboprop aircraft. **GECAS** also contracted to lease two EMBRAER 190 jets to **Myanmar Airlines**. Myanmar’s state airline will take delivery of the E190s in November and December, 2012. In May, the United States suspended economic sanctions on the country after 49 years of repressive military rule. This opened the door for greater commercial dealings with the long-isolated Asian nation.

GECAS agreed to lease nine used A319s to Las Vegas-based **Allegiant Air** to expand the carrier’s current fleet of 58 MD-80s and six 757-200s. All nine aircraft are powered with CFM56-5B engines and are being retired by **easyJet**. The first aircraft will be handed over to **Allegiant** in November 2012, with the remaining deliveries scheduled through 2015. **Allegiant** will also acquire 10 A319s from **Cebu Pacific Air**. All 19 156-seaters will enter service by the end of 2015.

International Lease Finance Corporation (ILFC) will lease six A330-300 aircraft to **AirAsia X**. The low-cost, long-haul affiliate of **AirAsia**, signed a letter of intent with **ILFC** to lease the A330s upon delivery in 2013 and 2014 for 10-year lease terms. The A330s will be identical to the planes that **AirAsia X** purchased directly from **Airbus**. They will be fitted with **Rolls Royce** Trent 700 engines, a two-class interior of 12 premium flatbeds and 365 economy seats, and they will have a Maximum Take-Off Weight of 233 tons. The six A330-300s will be operated on the airline's expanding network in Asia Pacific, including the countries of Australia, China, Japan, Korea, and Taiwan. **AirAsia X's** CEO, **Azran Osman-Rani**, said, "These six aircraft, together with existing delivery orders from **Airbus**, will see **AirAsia X's** growth develop, with a total of seven deliveries each in 2013 and 2014, with the aim of being the dominant market leader in the low-cost long-haul segment."

BOC Aviation contracted to lease two new EMBRAER 190 aircraft to **TUI Travel plc**. Both aircraft will be delivered in the first half of 2013 and will be operated by **Jetairfly**, a subsidiary of **TUI**. This will be first time an E190 will be operated by a charter tour operator.

FLY Leasing announced net income was \$25.7 million in the second quarter of 2012, compared to \$4.1 million in the same period of 2011. The increases in operating lease revenue and net income were primarily due to the growth in the aircraft portfolio following the aircraft acquisitions completed in late 2011. End of lease income and gains on the sale of three aircraft also contributed to the increase in net income. Net income for the six months ending June 30, 2012, were \$46.1 million compared to \$6.9 million in the same period in 2011. **FLY Leasing** acquired two 737-800s that are currently leased to **Transaero Airlines**. The 737NGs were manufactured in 1998, and were financed through a combination of secured bank debt and internal cash. Last month, **FLY** sold one 2001-vintage 737-700 and two 1995-vintage A320-200s for a "premium to net book value," the company said. **FLY** recently sold 11 aircraft, earning

Air Lease Corporation (ALC) reported revenues of \$158,173 for the second quarter 2012, compared to \$74,344 in 2011. Net income was \$28,172 in 2012 compared to \$7,023 in 2011. **ALC** ordered 100 737-8/9 MAX aircraft, of which 25 were subject to reconfirmation. The company announced two of its largest narrowbody lease placements to date with premier carriers, including 18 new aircraft with **China Southern**, and 13 new aircraft with **Air China**. **Steven F. Udvar-Házy**, Chairman and Chief Executive Officer of **ALC**, said, "With our recent launch order for the Boeing 737 MAX and the favorable economics associated with being a launch customer, we have secured **ALC's** core business through 2022 with a product that has strong market demand. Our lease placements continue to be in line with our expectations and we are nearing full placement of our new aircraft deliveries through 2015." The lessor said it was shifting its fleet distribution towards Asia over the next several years. The company is extending its lease terms to 12 years on both wide-body and single aisle aircraft, which locks in strong future rental revenue. **ALC** may not be making millions in profits per quarter but it now has unsecured revolving bank facilities of \$1 billion. The company added 23 aircraft during the second quarter of 2012 and now has 137 aircraft spread across a diverse and balanced customer base of 65 airlines based in 37 countries it said. It contracted to lease all 15 aircraft to be delivered in 2012, and all but two of the 30 new aircraft to be delivered in 2013. In the following years, **ALC** has customers for 26 of the 27 new jets due in 2014, for eight out of the 26 2015 delivering in 2015, and eight of the 55 aircraft to be built in 2017 to 2018 period.

an excess of \$40 million above net book value. The company's is rolling over its older fleet and buying newer, more efficient aircraft.

Airline News

For the First Time in 40 Years, Singapore Airlines (SIA) Does Not Have a Jumbo Jet on Order. The tiny nation's flag carrier took delivery of its 19th Airbus A380 in September. The airline has purchased 112 A380s and Boeing 747s since 1972, but it is now focusing on smaller long-haul planes for future growth due to falling passenger numbers and competition from Gulf carriers. **Singapore** still operates 13 747 freighters, having retired its last passenger 747-400 in April. The company is also concentrating on regional routes which are operated by **SilkAir**. Its subsidiary ordered 54 Boeing 737 planes to handle rising intra-Asian travel. **SIA's** passenger numbers have dropped 10 percent since 2008 to 17 million last year. By contrast, **SilkAir's** passengers have jumped 66 percent in the same period to 3 million, as growth in China, India and Southeast Asia spurs regional travel. The regional unit has 21 single-aisle Airbuses in service and will replace them with 23 737-800NGs and 31 737 MAX 8s. The airline also optioned another 14 737s. The 737 deal was valued at \$4.9 billion at list prices. **Singapore** has firm orders for 67 long-haul, twin-aisle planes which seat less than 400 passengers. The orders include 19 A330-300s, 20 A350-900s, eight 777-300ERs, and 20 787-9s. **SIA** also has options for 20 A350-900s, six A380s and 20 787-9s. Some of the new planes will replace **SIA's** five A340-500s and oldest 777s. A spokesman said, "We take a long-term approach with our fleet planning and regularly invest in the latest aircraft technology." The airline is talking about confirming its six A380 options, but has not decided to order more A380s yet, he said.

International Air Transport Association (IATA) Posts August and September Jet Fuel Prices.

The organization updates its global average jet fuel price each week. On August 12, the average price of fuel was \$3.13 per gallon. One month later, on

Doric Asset Finance Ltd. Makes Margaritas Out of Lemons. While the airlines bemoan the delays in A380 deliveries, **Mark Lapidus**, managing director of the largest financier of the **Airbus** superjumbo jets, said, the wing-crack problems have slowed down production and "anything that slows down the production rate increases the value of the existing fleet we have." **Doric** currently leases 10 A380s to **Emirates Airline** and five A380s to **Singapore Airlines**. The London-based financing company will add three more A380s by the end of 2012. The company is talking with **China Southern Airlines**, **Korean Air** and **Malaysian Airline System**. Mr. **Lapidus** sees the A380 as an underappreciated aircraft by the lessor community, and by some of the airlines that have not tasted the aircraft in their fleet yet. He expects that **British Airways** will want more A380 after it takes delivery of the first of 12 that it has on order. That event is being delayed by **Airbus'** struggle with cracks in wing components. **Airbus'** production will drop in 2013 and the manufacturer can not deliver 30 aircraft per year. **Doric** has an aviation asset portfolio worth \$5.1 billion under management, including two A340-600s, one A330-200, eight A320s, and six Boeing 777s. The company intends to finance Boeing 787s, and more 777s. **Doric** took delivery of its 13th A380 (SN 103) in late August and leased it to **Emirates Airlines** for 12 years. The plane was acquired by the German closed-end fund **SKY CLOUD IV**, a special purpose vehicle. The purchase price was reported to be \$234 million and financed by a long-term loan of \$145 million provided by a banking consortium led by **NordLB**. **Doric** added a further two A380s (SN 105 & 106) to its asset management portfolio. The aircraft were acquired by **Doric Nimrod Air Two Limited** (an LSE listed aircraft investment company). Both jets were leased to **Emirates** for 12 years.

September 14, prices jumped 3.9 percent to \$3.30 per gallon. **IATA** reported fuel prices were 6.2 percent lower than they were in August 2011, but the September price was 8.5 percent higher than it was in September 2011. The global airline industry will pay \$129.26 billion for fuel in 2012. **IATA** said that every \$1 increase in the price of a barrel of oil adds \$1.6 billion in costs to airlines. The fuel price rise will cost airlines an additional \$32 billion this year. On average, fuel now accounts for approximately one-third of the world's airlines total costs.

Qantas and Emirates Announced a New Global Partnership. The two parties signed a 10-year agreement on September 6, 2012, for an extensive commercial relationship. **Qantas** will move its hub for European flights to Dubai and coordinate with **Emirates** about prices, sales and scheduling. The two will code share, but will not take equity in the other airline. **Qantas** will offer daily A380 flights from both Sydney and Melbourne to London via Dubai, raising the combined Australia – Dubai flight to 14 per day. **Qantas** will join **Emirates** at **Dubai International Airport's** Terminal 3 and the new purpose-built A380 concourse. In light of the new partnership, **Qantas** will break off its joint business relationship with **British Airways** on March 31, 2013. The Australian carrier will be able to offer a wider range of one-stop flights to Europe as it shifts its hub for the continent from Singapore to Dubai.

Aerolíneas Argentinas Joined SkyTeam on August 29, becoming the 18th member of the global airline alliance. **Aerolíneas Argentinas** is the first South American member of **SkyTeam** and as such has added 40 new destinations to the network. **Aerolíneas** had to renew its fleet and rationalize its route network, as well as upgrade the entire IT platform, improve product quality and the frequent flyer program named **Aerolíneas Plus**. **Aerolíneas** currently serves 52 destinations in 14 countries

International Air Transport Association August International Traffic Growth.

Aug 2012 vs. Aug 2011	RPK Growth	ASK Growth	Pax Load Factor	FTK Growth	AFTK Growth
Africa	2.9%	1.4%	68.3%	11.8%	7.9%
Asia/Pacific	5.9%	6.2%	79.4%	-6.3%	-3.7%
Europe	5.6%	4.4%	84.9%	-1.1%	1.4%
Latin America	7.3%	5.8%	78.2%	-3.6%	13.1%
Middle East	16.7%	13.3%	78.4%	11.4%	10.5%
North America	0.5%	-0.5%	86.9%	1.8%	-2.1%
Industry	5.3%	4.1%	82.1%	-1.3%	0.7%
Year to Date 2012 vs. 2011	RPK Growth	ASK Growth	Load Factor	FTK Growth	AFTK Growth
Africa	8.3%	8.7%	66.3%	10.5%	12.5%
Asia/Pacific	5.4%	3.4%	78.0%	-7.3%	-5.6%
Europe	6.2%	4.0%	80.5%	-3.8%	1.0%
Latin America	9.1%	7.6%	78.0%	-1.4%	6.2%
Middle East	16.9%	13.0%	78.0%	14.1%	13.1%
North America	1.4%	0.0%	82.0%	-1.3%	-0.4%
Industry	6.6%	4.6%	79.1%	-2.6%	1.5%

RPK: Revenue Passenger Kilometers measures actual passenger traffic

ASK: Available Seat Kilometers measures available passenger capacity

PLF: Passenger Load Factor is the percent of **ASKs** used. In comparison of 2009 to 2008, **PLF** indicates point differential between the periods compared

FTK: Freight Tonne Kilometers measures actual freight traffic

AFTK: Available Freight Tonne Kilometers measures available total freight capacity

from its two hubs at Buenos Aires. It operates a comprehensive domestic network of 35 cities. The airline plans to lease three or four Airbus A330s during 2013 and to use them to boost international services on existing north-south routes in the Americas. Earlier this year, the airline replaced seven ageing Boeing 747 fleet with four A340-200s and seven A340-300s. Three of the A340s are owned by **Aerolineas** and eight are leased from **Airbus**, **Avinco**, **AWAS** and **ILFC**.

Merpati Nusantara, Indonesia, intends to lease eight Boeing 737-800s and to eventually replace its 15 classic 737s. The first new 737 will be delivered in November and the rest will arrive by 2015. They will be leased for five-year terms. The source of the 737NGs was not reported. **Merpati** also plans to acquire new 737-8 MAX aircraft within five years. The airline wants to buy or lease up to 40 regional jet aircraft in the 50-seat category for its domestic feeder routes. It currently operates 14 Xian Aircraft MA60 turboprops, two Fokker 100ss, and seven 19-seat turboprops. The sources and aircraft type of regional jets were not mentioned.

Lufthansa Will Merge its Intra-European Services into Germanwings. All the domestic and European services outside **Lufthansa's** Frankfurt and Munich hubs will be merged commercially and organizationally into **Germanwings GmbH** on January 1, 2013. Cologne will be the headquarters of the combined company. The airplanes will be repainted with the new company's logo in 2013. The **Eurowings** regional aircraft will fly on behalf of the new company. **Germanwings** will acquire approximately 30 aircraft from its parent. **Lufthansa** said, "As part of the **Lufthansa Airline Group**, the new company will get underway with the accordingly high quality standards." It will follow the low-cost model, which the company said was "reasonably priced, but not cheap."

PT Lion Mentari Airlines, Indonesia, will set up a low-cost carrier in Malaysia and challenge **AirAsia** in its home market. The new airline, **Malindo Airways** will be 51 percent owned by **National Aerospace & Defense Industries**, and intends to start flying in May. **Lion Air** will own the other 49 percent. **Malindo Airways** wants to operate up to 100 planes within a decade; it plans to fly domestic services and international flights to Thailand, China, India, Japan and Australia. **Lion Air** operates nine 737-800s and 64 737-900ERs, and has another seven -800s and 121 -900ERs on order. It signed a record order for 201 Boeing 737-9 MAX aircraft and took another 150 options. **Malindo's** fleet will come from **Lion Air's** backlog. **Lion Air** will also launch a long-haul carrier **Batik Air** in March with six Boeing 737s and five 787s.

Bankruptcy of the Month

Two Nigerian Airlines Close. **Air Nigeria** terminated operations on September 10 due to "staff disloyalty and environmental challenges," the airline said. The **Nigerian Civil Aviation Authority** grounded **Air Nigeria** on June 13 when it became concerned about the airline's finances. The national flag carrier operated flights across West Africa and to London with two A330s, nine 737 Classics and two E190 regional jets. **Air Nigeria** was founded in 2004 with the help of **Sir Richard Branson's Virgin Atlantic**, but he sold 49 percent stake in 2010. **Air Nigeria** fired its 500 staff members which caused the unions to protest alleged unfair dismissal and unpaid salaries. The company's Chairman **Jimoh Ibrahim** said he hoped to resurrect the airline in a year.

Arik Air suspended operations on September 20 after employees of the **Federal Airports Authority of Nigeria** raided the airline's offices and its maintenance hangar at the **Lagos International Airport**. The

cause of the raid is unclear. The airline's executives blamed the airport authority, which in turn blamed the raid on unions upset over unpaid salaries. The union complained about corruption and non-payment of wages. The country's **Civil Aviation Authority** told the press that **Arik** was using the suspension of its services as an excuse to escape paying money it owes to the federal government. If the airline does not resume operations quickly, its orders for two Boeing 747-8s, eight 737s and seven 787-9s will be in doubt.

International Airline Group shut down its British discount airline **BMibaby** on September 9, 2012. **IAG** bought **BMibaby** with the **BMI Group** from **Deutsche Lufthansa AG**, but it could not find a buyer for the unit. Approximately 450 people were fired, but they will be able to apply for vacancies at **British Airways**. **IAG** said in a statement, "After a review of options for **BMibaby** and following formal consultation with union and employee representatives, the business will be closed, with the last flight departing September 9." **BMibaby** was crushed under the weight of competition from **Ryanair** and **Jet2.com** at its East Midlands hub, and **easyJet** at Birmingham to the north. The carrier operated 14 737 Classic aircraft to 23 European destinations. **IAG** was able to sell its **BMI Regional** airline to **Sector Aviation Holdings** for £8 million in May.

Precision Conversions received US **FAA** approval to perform cargo modifications for Boeing 757-200s with **APB** winglets, becoming the first conversion specialist allowed to modify winglet-equipped 757s. The Portland-based company began the engineering and certification process in late 2010. It included gathering substantial data to analyze how a cargo conversion would affect a winglet, and involved wind tunnel modeling and other tests. The study showed the conversion did not require any modifications to the aircraft beyond fitting standard cargo capabilities. **Precision Conversions** completed the first 757 cargo conversion for the plane's owner **Cargo Aircraft Management**, a subsidiary of **Air Transport Services Group**. The airplane will enter service later this year. **CAM** contracted for a second conversion. The **FAA** approval will allow for more than 300 757s with winglets to be turned into freighters. Many of these airplanes will enter the market in the next few years at an attractive price for cargo carriers, as the legacy operators such as **United Airlines** and **American Airlines** withdraw their 757s from service. **Precision Conversions** also applied for **FAA** certification for 757-200 combi conversions, and expects to receive it in December.

Wind Jet S.p.A., an Italian budget carrier suspended all of its services on August 12 and stranded hundreds of passengers. The Italian civil aviation administration **ENAC** suspended **Wind Jet's** operating license the next day. The airline was founded in 2003, and was the fourth Italian airline by number of passengers. Flag carrier **Alitalia** was considering the purchase of the financially troubled **Wind Jet**, but said the budget airline did not provide enough documentation of its financial position to enable a clear assessment of the company's value. The airline's 11 leased A319s and A320s were parked at Dublin.

Cargo Pallet

Atlas Air Worldwide Holdings will lease its sixth and seventh Boeing 747-8F freighters to **DHL Express** upon delivery in the fourth quarter of 2012. The 747Fs will be operated by **Atlas Air Worldwide's** subsidiary **Atlas Air**, in the **Polar Air Cargo Worldwide** express network under an ACMI arrangement for the benefit of **DHL Express**. The 747-8Fs will replace two 747-400Fs that are currently in service for **DHL Express**, and will be the first 747-8Fs in **DHL's** fleet. **DHL Express** will operate the planes on its Asian and transpacific services.

Aeronautical Engineers, Inc. (AEI) will convert two high-gross-weight 737-400s to 11 Pallet Configuration 737-400SFs for **Aviation Capital Group (ACG)**. The two planes (SN 28661 & 28493) will be the fifth and sixth 737-400s to be converted for **ACG**. The first plane was delivered in 1997 and is currently undergoing freighter modification at **AEI's** authorized conversion center, **Commercial Jet, Inc.**, located in Miami. It will be finished in November. The latter plane was built in 1996 and will exit the conversion line in late February 2013, when the freighter will be available for immediate lease. **Robert T. Convey**, Vice President of Sales & Marketing, stated, "AEI's 737-400SF 11 Pallet Configuration backlog is at historic highs and is showing no signs of slowing. **AEI** is now projecting 13 or more 737-400SF conversions in 2013 in addition to 15 or more MD-80SF's currently in the backlog which will make 2013 an historic year for narrow body conversions."

Technical

Air Berlin group contracted with **Airbus** to have Sharklet fuel-saving wing tip devices fitted on all 14 of the Airbus A320/A321 aircraft that are still on order. The two and a half meter, upward-pointing, wing tip extensions reduce the creation of vortices and therefore improve aerodynamics. The Sharklets reduce fuel burn by up to 3.5 percent and make the A320 and A321 even more efficient. As a result of improved upward lift, the plane can climb more rapidly, which reduces noise on the ground. The first Sharklet-fitted A320 will be delivered to **Niki**, part of the **Air Berlin** group, in the spring of 2013, making it one of the first airlines in the world to receive the Sharklet.

China Southern Airlines announced it will buy blended winglets for another 40 Boeing 737-700 and 737-800 aircraft. **China Southern** already operates 32 737NGs with **Aviation Partners Boeing (APB)** advanced technology winglets, which save fuel and increase their takeoff capability from difficult airports such as Kunming, China. The airline is retrofitting 40 of its 69 in-service 737 NG aircraft with the winglets.

Aviation Partners Boeing (APB) announced **LAN Airlines**, Chile, has ordered **Blended Winglet Systems** for another 10 767-300ER passenger and freighter aircraft. The airline has now ordered 57 Blended Winglet systems for its 767-300ER/F fleet, making it the largest **APB** customer for this model.

Comlux The Aviation Group announced the grand opening of its new **Comlux America** completion hangar at **Indianapolis International Airport**. **Comlux America** established itself as one of the most unique and modern completion centers for the cabin outfitting of **Airbus Corporate Jets** and **Boeing Business Jets**. The new hangar facility is 129,000 square feet, with supporting back shops, and it can accommodate up to four narrow body aircraft at the same time. This modern facility is fully equipped to outfit the most luxurious, state-of-the-art aircraft interiors and carries **EASA**, **FAA**, Bermuda, **GACA** (Saudi Arabia) and Aruban Part 145 Repair Station designations, to readily support a worldwide clientele. **Comlux America** is one of a few completion centers that has all shops integrated under the same roof: Cabinetry, Sheet Metal, Systems, Avionics, Upholstery, and Finish. Additionally, the Interior Design Center, Engineering Department, Certification Group, Technical Publications and the Document Control Center, are also readily accessed from the hangar floor along with the Program Management Offices, Procurement, Planning and Senior Management Team.

Southwest Airlines will purchase **Blended Winglets** for 268 more 737-700 and 737-800 aircraft. It was a launch customer for the **APB** winglets in 2003. This order will ensure that all of **Southwest's** future Next-Generation 737s will be equipped with Blended Winglets.

KLM Royal Dutch Airlines sold 737-406 (SN 25423) to **GainJet Aviation S.A.**, through **Cabot Aviation** as a remarketing agent. The 737 was built in 1992 and will be converted into a deluxe VIP Executive Airliner with a stateroom. It will be fitted with auxiliary fuel tanks for intercontinental range. **GainJet Aviation** is a worldwide private aircraft charter operator based in Athens. The company already has a long-range VIP Boeing 757 with a stateroom.

Jet Aviation Basel signed an agreement with an undisclosed Middle Eastern client, for the completion of a 737-900ER-BBJ3. The spacious cabin interior was designed by **Studio E/motions**.

The layout includes a spacious living area, a conference/dining room and a private bedroom with en-suite bathroom. Work on the cabin interior is scheduled to begin in the third quarter of 2012. **Boeing** has delivered six BBJ3s and has one outstanding order for the type.

Associated Air Center, StandardAero's VIP transport completions center in Dallas, Texas, recently delivered its 23rd 737 BBJ interior to an Eastern European-based energy company. The completed interior includes a large sitting area with bench seating, retractable tables and individual captain's chairs, as well as a custom-designed lavatory and bedroom. Other accoutrements include a fully-equipped cabin management system incorporating in-flight entertainment, WiFi communications and flat panel video monitors. Recently **Associated Air Center** won a contract to modify an A330-200. The company opened its 4,000 square foot VIP custom interior design center, which includes a full scale **Boeing Business Jet/Airbus Corporate Jet** VIP cabin interior, and features fully-functioning seating, interior lighting, cabin management systems, and an array of fabrics, veneers and interior layout floor plans.

Military Market

The U.S. Navy ordered 11 P-8A Poseidon aircraft, priced at \$1.9 billion. The contract will bring the total fleet to 24 and will bolster the **Navy's** anti-submarine, anti-surface warfare and intelligence, surveillance and reconnaissance capabilities. This is the third low-rate initial production contract, which follows two signed last year for a total of 13 aircraft. **Boeing** has delivered three of the production P-8As, which are based on **Boeing's** Next-Generation 737-800 commercial jets and are built on the same production line in Renton. All P-8A-unique modifications are made in sequence during fabrication and assembly. After assembly, the aircraft enter **Boeing's** mission system installation and checkout facility for final modifications. The **Navy** plans to purchase 117 to replace its P-3 fleet. **Chuck Dabundo, Boeing** vice president and P-8 program manager said, "This contract is a stepping stone to full-rate production, and our focus remains on building Poseidon on cost and on schedule." The P-8As are based at **Naval Air Station Jacksonville** where the P-8As are replacing P-3 Orions. **Boeing** built and is testing six flight-test and two ground-test aircraft under a **Navy System Development and Demonstration** contract awarded in 2004. The test aircraft have completed more than 600 sorties and 2,500 flight hours to date. **Boeing's** P-8A production team includes **CFM International, Northrop Grumman, Raytheon, Spirit AeroSystems, BAE Systems** and **GE Aviation**.

Airbus Military launched an investigation to determine what caused the refueling boom to detach from an A330 multi-role tanker transport (MRTT) during a flight over Spain on September 10. The

manufacturer said, the accident involved the second of three MRTTs that were ordered by the **United Arab Emirates Air Force**. The plane was being flown by an **Airbus Military** crew from the company's Getafe manufacturing site, near Madrid. The company tersely stated, "The aircraft was flying at 27,000ft [8,230m] when it encountered a total boom detachment. The aircraft landed normally at Getafe and was found to have suffered extremely light damage."

The Colombian Air Force (CAF) ordered its fifth Airbus Military C295. The air force has operated the C295 since 2008. The **CAF** also operates three Airbus Military CN235-200 transport aircraft on humanitarian and military transport missions. This latest order underlines **Airbus Military's** leadership in this segment after achieving more than 100 orders worldwide, the company said. **Airbus Military** has sold 114 C295s and delivered 86 to operators in 14 countries.

Embraer Defense and Security delivered the first EMB-145SA Airborne Early Warning and Control (AEW&C) (SN 14501130) to the **Government of India** in August. The delivery follows successful completion of ground and flight tests of the aircraft which met operational targets established by both **Embraer** and **Centre for Airborne Systems (CABS) of Defense Research & Development Organization (DRDO)**. Later on the aircraft will be delivered to the **Indian Air Force** after integration of missions systems by **CABS** in India. The **Indian Air Force** ordered three EMB-145SAs and has options for seven more.

Airbus Military re-delivered the first of three C212-400 maritime patrol aircraft to the **Vietnam Marine Police**. The maritime mission system was installed at Skavsta, Sweden. The C212 was formally delivered to the **Vietnamese Government** last year and then flown to Sweden for the conversion work. The three aircraft will be used for a range of missions including coastal patrol, search and rescue, anti-pollution operations, and law enforcement against smuggling of goods or people, **Airbus Military** said. The second aircraft is currently being converted in Sweden and the third will be flown from Seville by the end of the year. A total of 478 C212s have been ordered by operators in 42 countries worldwide.

Airbus Military Delayed A400M Atlas Deliveries for Three Months. The company blamed engine problems for the delay, which comes after **Airbus** cancelled the planned flying display by the A400M heavy-lifter at the **Farnborough Airshow**. The A400M did not fly at the **Paris Airshow** in 2011 either. The project has been hurt by delays and cost overruns. Civil certification for the A400M was pushed back to the first quarter of 2013, with delivery to the **French Air Force** in the second quarter. The aircraft's turboprop engines have plagued the program. The recent delay was caused by "the detection of metallic chips in the oil system of one of the engines," **Airbus** said, adding that the engine maker **Europrop International** had made a new design available, which was being tested.

AIRCRAFT DELIVERIES & SALES

Jet Aircraft

Airbus A318 & A319. **Airbus** delivered one ACJ318 (A318-112, SN 4732) to an un-named private customer in July. Three A319s were delivered in July. **Sichuan Airlines** accepted -133 (SN 5208), and **Lufthansa** received -112 (SN 5239). **Avianca Brazil** leased one -115 (SN 5219) from **TACA**

International Airlines. In August, **Tibet Airlines** took delivery of its fourth of eight -115 (SN 5256), and **China Eastern Airlines** received -133 (SN 5267).

Airbus A320. Airbus delivered 27 A320s in July, including three -232 (SN 5202, 5214 & 5225) to **China Southern Airlines**. **AirAsia** took delivery of two -216s (SN 5200 & 5215) and leased the first to **AirAsia Japan** and the second to **Indonesia AirAsia**. **Tiger Airways** received two -232s (SN 5188 & 5228) and leased them to **South East Asian Airlines (Seair)**, its new Philippine subsidiary. **Gulf Air** acquired two -214s (SN 5171 & 5175), **IndiGo** bought two -232s (SN 5230 & 5231), and **TAM Linhas Aereas** accepted two -214s (SN 5209 & 5222). In Asia, **Airbus FALC** in Tianjin, China, delivered one -214 (SN 5014) to **Air China**, one -214 (SN 5013) to **Juneyao Airlines**, and one -214 (SN 5022) to **Spring Airlines**. **Hainan Airlines** leased -214 (SN 5220) to **Lucky Air**, and **Qantas** leased -232 (SN 5211) to **Jetstar**. In the Middle East, **Saudi Arabian Airlines** accepted -214 (SN 5223), **Tunisair** received -214 (SN 5204), **Qatar Airways** acquired -232 (SN 5217), and **Air Arabia** took delivery of -214 (SN 5206). In the Americas, **Volaris** leased -233 (SN 5212) from the **Wells Fargo Bank**, trustee, and **LAN Airlines** received -214 (SN 5229). Airbus delivered two -200s to European airlines, including -214 (SN 5203) to **Lufthansa** and -214 (SN 5236) to **easyJet**. **GECAS** leased -214 (SN 5232) to **Go Air**.

Airbus delivered the 100th A320 Family aircraft to be assembled at **Airbus' A320 Family Final Assembly Line China (FALC)** to **Air China** on September 25. This delivery from the **Airbus Tianjin Delivery Center** comes some three years after the first aircraft was delivered on June 22, 2009. The new A320 is powered by IAE V2500 engines, and is configured with eight business class and 150 economy class seats. The aircraft will be deployed on domestic routes linking Shanghai to other cities in China. **Air China** now operates 93 A320 Family aircraft, one of the biggest A320 Family fleets in China. To date, more than 700 Airbus A320 Family aircraft are in service in China, and 11 Chinese customers have taken deliveries from the **Airbus Tianjin Delivery Center**.

In August, Airbus delivered 21 A320s, including two -214s (SN 5224 & 5249) to **easyJet**, and two -232s (SN 5259 & 5262) to **IndiGo**. **SMBC Aviation Capital** leased two -232s (SN 5248 & 5258) to **Thai Smile**, **Thai International's** new low-cost subsidiary. **Avianca** accepted two -214s (SN 5238 & 5243) and leased them to **TACA International**. **Air Berlin** received two -214s (SN 5246 & 5252). In Asia, Airbus delivered four Tianjin-built -200s, including -214 (SN 5032) to **Air China**, -232 (SN 5041) to **Sichuan Airlines**, -214 (SN 5051) to **Spring Airlines**, and -232 (SN 5061) to **China Southern Airlines**. **Qantas** leased -232 (SN 5245) to **Jetstar Japan**, and **Tiger Airways** leased -232 (SN 5218) to **Tiger Airways Australia**. **China Eastern Airlines** took delivery of -232 (SN 5242) and **Cebu Air** received -214 (SN 5250). In the Americas, **TAM Linhas Aereas** accepted -214s (SN 5240), **Interjet** purchased -214 (SN 5221), and **LAN Airlines** received -214 (SN 5263). **LAN** sold the plane to **AWAS** and leased it back. In late 2011 **AWAS** and **LAN** entered into a purchase and leaseback transaction for five new A320s from **LAN's** backlog and this was the fifth and final aircraft covered by the contract.

GE Capital Aviation Services (GECAS) leased a third new A320-214 (SN 5253) to **Middle East Airlines (MEA)**, Lebanon, in September. The first two A320s were delivered in May and June to expand the airline's fleet. **MEA** currently operates a fleet of 17 aircraft to destinations in Africa, Europe, the Gulf region and the Middle East. It is a member of the **SkyTeam** alliance.

GECAS leased two used A320s to start-up airline **VivaColombia**. The first low-cost carrier in Colombia began service on May 25 from its base in Medellin, Colombia, and serves passenger routes

within the country. **GECAS** leased two used A320s to **BH Air**, also known as **Balkan Holidays Airlines**. The airline currently operates a fleet of six Airbus aircraft on charters between Bulgaria and various destinations in Europe.

Airbus A321. Airbus delivered three A321s in July, and nine in August. **Gulf Air** accepted -231 (SN 5180), and **China Southern Airlines** took delivery of -231 (SN 5237), in July. **US Airways** received -231 (SN 5235) in July and two -231s (SN 5244 & 5269) in August. **Vietnam Airlines** accepted its 25th and 26th -231s (SN 5241 & 5247) in August and leased -231 (SN 5251) from **Vietnam Aircraft Leasing**. Airbus delivered -231 (SN 5265) to **Air China**, -231 (SN 5233) to **Sichuan Airlines**, and -231 (SN 5227) to **China Eastern Airlines**. **THY Turkish Airlines** accepted one -231 (SN 5254).

Airbus A330. Airbus delivered six A330-200s and four -300s in May and another five A330s of all models in August. **Alitalia** leased one -202 (SN 1327) from **Airbus Financial Services** in July. The **Airbus MTAD** took delivery of -243 (SN 1334) and will convert it into a tanker-transport for the **Royal Air Force**. Airbus delivered -243 (SN 1330) to **Air China**, and -243 (SN 1331) to **China Eastern Airlines**. A private customer identified as **Hongkong Jet** took delivery of -202 (SN 1321). The airplane was originally built for **AirAsia X**, which sold the delivery position to the international business aviation arm of **HNA Group**, parent of **Hainan Airlines**. **Hong Kong Airlines** accepted its second of nine -343s (SN 1325), and **Asiana** leased -323E (SN 1326) from **Air Lease Corp**. Also **Aeroflot** received its seventh and eighth -343Es (SN 1323 & 1328). **Malaysian Airlines** obtained its 18th -323E (SN 1336) in July and its 19th -323E (SN 1337) in August. **China Southern Airlines** received -223 (SN 1335), and **Air China** accepted -343E (SN 1333). **Virgin Atlantic Airways** leased -343E (SN 1329) from **AerCap Ireland**. Also Airbus delivered the first of four -243F cargo aircraft (SN 1332) to **MNG Airlines**, Turkey. The airline already operates seven A300 cargo aircraft, and will expand its services by moving up to the A330 Freighter. Airbus said the A330 -200F is the world's most modern mid-size freighter which can carry 70 tons of payload for up to 4,000 nm. The mid-size freighter segment is forecast to require more than 1,320 aircraft in the next 20 years.

Avianca took delivery of its ninth A330-243 (SN 1342) on September 17. The aircraft is powered by Rolls Royce Trent 700 engines and is the 100th Airbus aircraft to join the **Avianca** and **TACA** fleets.

Airbus A380. Airbus delivered **Malaysia Airlines' (MAS)** second A380-841 (SN 081) in July. The airline has another four A380s on order. **Singapore Airlines** accepted its 18th of 19 -841 (SN 085). **Emirates** received its 22nd -861 (SN 101) in July and the 23rd -861 (SN 103) in August. This plane was the 14th delivered by Airbus as of August 31, 2012, and it was the 81st provided to eight operators worldwide.

Doric (formerly **Doric Asset Finance**) added two more A380-861s (SN 105 & 106) to its asset management portfolio in September. The aircraft were acquired by **Doric Nimrod Air Two Limited (DNA2)**, an LSE listed aircraft investment company, and were leased to **Emirates** for a period of 12 years. A380 (SN 105) is the third aircraft to be financed by the initial \$231 million issuance that **DNA2** signed in July 2011. That plane was financed by a banking consortium consisting of **Commerzbank**, **Bank of China** and **ICBC**. The second super jumbojet (SN 106) is the first A380 to be delivered under **Doric's** \$587.5 million enhanced equipment trust certificates (EETC) which funded four A380s for lease to **Emirates**. The remaining three aircraft are scheduled for delivery in the fourth quarter of 2012. **Doric** now has 32 aircraft (including 15 A380s), valued at over US\$ 5.1 billion, under management.

Boeing 737NG. Boeing delivered 33 737s in July, including three -8H4/Ws (SN 36684, 36990 & 38811) to **Southwest Airlines**. **American Airlines** received two -823/Ws (SN 31149 & 33224), and sold them to trustee banks for **AerCap**. The 737s were leased back to **American**. Boeing delivered two -71B/W (SN 38925 & 38962) to **China Southern Airlines**, and two -85C/W (SN 38391 & 38392) to **Xiamen Airlines**. **Lion Air** accepted two more -8GP/Ws (SN 37295 & 38722), for a total of seven, and **Virgin Australia Airlines** took delivery of two -8FE/Ws (SN 38713 & 38716). **Virgin Australia** leased -8FE/W (SN 39924) from **RBS Aviation Capital**. In Europe, **Air Berlin** received one -86J/W (SN 37768), **Norwegian Air Shuttle** obtained -8JP/W (SN 39015), and **Air Europa** accepted -85P/W (SN 36589). In Africa, **Comair Limited** took delivery of -8LD/W (SN 40851), and **Egyptair** received -866/W (SN 40802). Boeing delivered two -800s to Middle Eastern airlines, including the 24th -8KN/W (SN 40254) to **flydubai** and -9F2/W (SN 40979) to **Turkish Airlines**. Elsewhere in Asia, the **Indian Navy/Boeing Defense** took delivery of its first P-8I Poseidon -8FV (SN 40611). The airplane is still in the United States having its anti-submarine equipment installed. **Air China** received -89L/W (SN 40034), **Hainan Airlines** bought one -84P/W (SN 38155), **Shandong Airlines** took delivery of -85N/W (SN 38641), and **Shenzhen Airlines** purchased one -87L/W (SN 39153). **Malaysia Airlines** acquired -8H6/W (SN 40136), and **Japan Airlines** received -846/W (SN 39194) for operation by **JAL Express**. **GECAS** leased one -86N/W (SN 38029) to **Jet Airways**. **China Eastern Airlines** leased one -86N/W (SN 39400) from **GECAS** and leased -89P/W (SN 40949) from **Avolon**. In the Americas, **GOL Transportes Aereas** bought -8EH/W (35850), and leased -8HX/W (SN 38876) from **Aviation Capital Group**.

Thai Airways International (THAI) took delivery of its first A380-841 (SN 087) in September, becoming the ninth airline to operate the type. **THAI** ordered six A380s, powered by Rolls-Royce Trent 900 engines. The airplane features a three class layout, with 12 private suites in First Class, 60 fully flat sleeper seats in Royal Silk Class and 435 seats in Economy. **THAI** will inaugurate commercial A380 service in early October on routes from Bangkok to Hong Kong and Singapore routes. The airline will fly to Frankfurt by the end of 2012, and to Paris and Tokyo early in 2013, when more A380s are delivered.

In August, Boeing Delivered 33 737s, including two -823/Ws (SN 31151 & 33225) to **American Airlines**. The 737s were sold to **AerCap** and leased back. **Southwest Airlines** bought two -8H4/Ws (SN 36685 & 36992). **Virgin Australia Airlines** took delivery of two -8FE/Ws (SN 38714 & 38715) and **Lion Air** accepted two more -9GP/Ws (SN 37296 & 38723). Boeing delivered two -87L/Ws (SN 39154 & 39155) to **Shenzhen Airlines**, two -81B/Ws (SN 38926 & 38927) to **China Southern Airlines**, and two -85C/W (SN 38393 & 38394) to **Xiamen Airlines**. In the Americas, the **U.S. Navy/Boeing Defense** received its fifth P-8A Poseidon -8FV (SN 40813), and **Aeromexico** accepted -852/W (SN 36700). **GOL Transportes Aereas** bought -8EH/W (39604), and leased -8HX/W (SN 38877) from **Aviation Capital Group**. **Boeing Business Jet** accepted one BBJ1 -7EG/W (SN 40586) on behalf of a VIP Customer. In Europe, **Air Berlin** received one -86J/W (SN 37769), and **Norwegian Air Shuttle** obtained -8JP/W (SN 39016). In Asia, **GECAS** leased two -86N/Ws (SN 38030 & 39401) to **Jet Airways**. **Japan Airlines** took delivery of -846/W (SN 40353) and leased -846/W (SN 40950) from **Avolon**, both for operation by **JAL Express**. **All Nippon Airways** accepted -881/W (SN 33910), and **Qantas** obtained another -838/W (SN 39367). Boeing delivered one -89L/W (SN 40035) to **Air China**, one -84P/W (SN 38156) to **Hainan Airlines**, one -85N/W (SN 38642) to **Shandong Airlines**, and one -79P/W (SN 39721) to **China Eastern Airlines**.

Malaysia Airlines took delivery of its 75th 737 aircraft in August. The Next-Generation 737-8H6/W (SN 40137) comes with the 787 Dreamliner-inspired **Boeing Sky Interior**, which features larger overhead stowage bins and LED lighting. **Malaysia Airlines** was the Asia launch customer for the new interior in October 2010. The airline accepted its first 737-200 Adv in 1972 and has operated the 737-200, 737-300, 737-400, 737-500 and 737-800.

GE Capital Aviation Services (GECAS) purchased and leased-back two new 737-8GP/Ws with Indonesia's **Lion Air**. The aircraft are from the airline's existing order book and were delivered in May and July.

FLY Leasing acquired two 737-800s that are on lease to **Transaero**, Russia. The 737s were manufactured in 1998 and the deal was financed with secured bank debt and **FLY's** free cash. **FLY** now has a fleet of 110 aircraft on lease to 53 airlines in 29 countries.

Skytech-AIC was chosen by **airBaltic**, the flag carrier of Latvia, to procure up to six 737-300s. The 737s will provide interim capacity until **airBaltic's** 10 Bombardier CS300s are delivered after 2015.

Boeing 747. Nippon Cargo Airlines (NCA) took delivery of its first 747-8KZF freighter (SN 35960) in late July. It is **NCA's** first of 14 747-8Fs on order with **Boeing**. **NCA** was one of the launch customers for the 747-8 Freighter in 2005. The airline currently operates eight 747-400F freighters with two 747-400F freighters on lease with other airlines. **NCA's** new 747-8F entered service on routes to Asia and North America. **Boeing** delivered -87UF (SN 37565) to **Atlas Air Worldwide Holdings**. The plane is the first 747-8F

to be operated on behalf of **Panalpina**, the Swiss-based freight operator. **Cathay Pacific Airways** received its sixth -867F (SN 39245) in July, and its seventh -867F (SN 39247) in August. **Lufthansa**, the launch customer for the 747-8 Intercontinental passenger plane, took delivery of its second -830 (SN 37829) in late August. **Lufthansa's** 747-8 Intercontinentals are equipped with 362 seats in a three-class configuration (eight First Class, 92 Business Class and 262 Economy Class) and GENx-2B engines. In

Asian Airlines Selling 747-400s. Singapore Airlines sold its last 747-400 in the first quarter and actually lost money on the deal. **Japan Airlines** grounded its fleet, while **Cathay Pacific Airways, Korean Air** and **Malaysian Airline** will do the same. **All Nippon Airways** will retire its last seven 747s by March 2016. The 787s have taken over several long-haul routes. The market for the former "Queen of the Skies" is falling fast. **Ascend Worldwide** reported that 10-year-old passenger 747-400s were worth only \$36 million, a 10 percent drop in value over the past year. This is because fuel prices have jumped about 30 percent in two years. The slump in the cargo market has reduced demand for 747-400 freighter conversion, so 48 of the 404 passenger 747-400s are in storage. The only demand for -400 models is for parts. **Cathay Pacific** said it would retire its 21 passenger 747-400s at a faster rate. Nine will be replaced by 777-300ERs by 2014 and three -400 freighters will leave the fleet in 2012 as new 747-8Fs arrive. **Thai Airways International** is selling four 747-400s, having received the first of six new A380s in September. The 747s will be gone in 2013. **Malaysian Airlines** also took delivery of its first A380 in July, and will dispose of its dozen 747-400s soon. The European flag carriers will replace their 747-400s at a slower pace. **British Airways** will retire the last of its fleet of 55 -400s in about 10 years. They will be superseded by 777-300ERs and a dozen A380s; the first is due in the third quarter. **Lufthansa** will retire its 24 747-400s now that its first three 747-8s have arrived. **Lufthansa** scrapped its two oldest -400s in the first quarter, and grounded four more in August.

June, **Boeing Business Jet** accepted -8JA (SN 40065) on behalf of **Prince Sultan Bin Abdul Aziz** of Saudi Arabia. It is reported that **Boeing** is stuck with the airplane. The Prince died in October 2011 and the contract with **Jet Aviation** to convert the plane into an opulent VIP transport was cancelled early this year. The airplane is stored in San Bernardino, California.

Lufthansa Technik AG began work on its first VIP 747-8 for an unidentified customer. The aircraft landed in Hamburg on August 30 and engineers started the installation of a cabin interior that incorporates the ultimate in interior design. The contract was signed back in 2011 and the plane will be delivered in the summer of 2014.

Emirates 777 Sales and Leasebacks. **Compass Point Aviation (CPA)**, a newly established affiliate of a global asset management company, purchased and leased back one new -31HER with **Emirates**. CPA is currently working on closing several more transactions. **GE Capital Aviation Services (GECAS)** bought and leased-back three new -31HERs with **Emirates**. The airline sold and leased-back four GE90s and three GP7200s in June. The first aircraft (SN 41077) was delivered on May 30. The other two will be delivered in the fourth quarter of 2012.

Boeing delivered the first **Aeroloft** to be installed on a Boeing Business Jet (BBJ) 747-8. The **Aeroloft** was designed and built by **Greenpoint Technologies** of Kirkland, Washington, and provides 393 square feet (36.5 sq m) of additional cabin space. The **Aeroloft** was installed by **Boeing Global Transport & Executive Systems (GTES)** in Wichita, Kansas. The addition is located above the main cabin between the upper deck and tail of the airplane. It boasts eight private sleeping berths and a changing room providing a comfortable rest area during flight.

Boeing 757. **U.S. Bank Trust National Association**, owner trustee, sold two ex-**United Airlines** -200s (SN 25276 & 26702) to **Aerolease 3**, an affiliate of **Aerolease Aviation**. The sale was arranged by **SkyWorks Leasing** and closed in September.

Boeing 767. **LAN Airlines** received its 25th and 26th -316ER (SN 40592 & 41746) in July and the 28th (SN 41747) in August. The airline has seven more on order. **Azerbaijan Airlines** took delivery of one -32LF freighter (SN 41069) in July. The freighter is operated under **Silk Way West Airlines** titles. **United Parcel Service—UPS** accepted its 51st -34AERF (SN 37877) in late August. **UPS** is the world's largest 767 Freighter operator, and has eight more on order.

Boeing 777. **Boeing** delivered five 777s in July and eight 777s in August. **Emirates** took delivery of two -31HERs (SN 38990 & 41079) in July and two more (SN 35601 & 35602) in August. **Asiana Airlines** received -28E (SN 40198) in July. **KLM - Royal Dutch Airlines** accepted -306ER (SN 35947), and **Air China** acquired -39LER (SN 38671). **Cathay Pacific** accepted its 25th -367ER (SN 39236) in August. **FedEx** accepted its 17th and 18th -FS2 (SN 41065 & 41439). **TAM** received -32WER (SN 38886), and **Qatar Airways** took delivery of -3 (SN 41780). **BOC Aviation** leased -3ALER (SN 41520) to **Thai Airways International**. **Thai** operates five leased Boeing 777-300ERs, and this new Boeing 777-300ER is one of eight that will be leased from **BOC Aviation**. In addition to these leased aircraft, **Thai** ordered six 777-300ERs. In total, **Thai** will operate a total of 19 -300ERs.

Boeing delivered the first 777-200LRF freighter to **Ethiopian Airlines** in September. It was leased from **GECAS**. This is the first 777F to be operated by an African carrier. A second 777-200LRF is scheduled

for delivery in October. **Ethiopian Airlines** was the first African airline to operate the 777-200LR in 2010. They currently operate an all-Boeing fleet of 737, 757, 767, 777, and 787 airplanes in passenger service and a 757, MD-11, 747, and now a 777 in cargo operations.

Boeing 787. **All Nippon Airways** took delivery of one -8 (SN 34502) in July, and two -8s (SN 34485 & 34521), bringing their fleet total to 13 aircraft. **Ethiopian Airlines** took delivery of the airline's first 787-8 (SN 34745) on August 14, becoming the third airline in the world to operate the type. **Ethiopian** flew its 787 to **Dulles International Airport**, near Washington D.C. where the aircraft was on display and visited by VIP guests and media. It then made its inaugural revenue flight to **Bole Addis Ababa International Airport**, in Ethiopia. The airline has nine more 787s on order. **LAN Airlines** took delivery of its -8 (SN 38471) on August 28, making **LAN** the first airline in the Americas to receive the new airplane. **LAN** is the fourth customer in the world to receive the Boeing 787 and it has another 31 787s on order or contracted to lease. **LAN's** 787s will fly between Santiago, and Buenos Aires, Lima, Los Angeles, Madrid and Frankfurt. These routes will be added gradually during its first year of operation. **Air India** became the fifth airline to operate the 787 when it took delivery of its first -8 (SN 36276) on September 6, and its second -8 (SN 36278) on September 18. The airplanes are equipped with 18 business class seats and 238 economy class seats, and have the range and capability to fly from India to the Middle East, Europe, Asia and Australia. **Air India** has 25 more 787s on order. **United Airlines** received its first 787-8 (SN 34821) from **Boeing** on September 24. **United** is the first airline in North America to take delivery of the 787 and will use it on international services to Africa, Asia and Europe (after a brief stint of non-commercial domestic flights ending in late 2012). The first 787 was delivered to **All Nippon Airways (ANA)** one year ago, in late September, 2011. Since then, **Boeing** has delivered 25 787 Dreamliners to six different customers.

JetCorp Technical Services, a subsidiary of **Flying Colours Corp.**, Canada, began work on the latest of its executive conversions of the Bombardier CRJ 200 regional airliner. It will be transformed into an ExecLiner executive VIP configuration and is destined for a private Indonesian client. **Flying Colours** will supply an **FAA** STC that will subsequently be validated by the Indonesian regulatory body and the aircraft will be exported to Indonesia upon completion. **Jetcorp** will carry out an extensive maintenance package on the aircraft at its MRO facility. Maintenance work will include a landing gear overhaul, a 96-month inspection, the conversion from a high utilization maintenance program (HUMP) to a low maintenance program (LUMP) and the incorporation of all outstanding Airworthiness Directives.

Bombardier delivered CRJ900NG (SN 15282) to **China Express Airlines** in July. The airline has another five CRJ900s on order and options for five. It started operating CRJ200s in November 2006 and currently has five in its fleet.

Embraer delivered two EMBRAER 170-200 STDs (SN 17000342 & 17000343) to **CIT Aerospace** for lease to **Alitalia**, in July. **Alitalia** leased two E175s (SN 17000345 & 17000346) from **CIT**, and **Oman Air** took delivery of E175 (SN 17000349) in August. In June, **Embraer** delivered EMBRAER 190-100 IGW (SN 17000549) to **Jetblue Airways**, and **Air Lease Corp.** leased E190 SN (19000550) to **Trip Linhas Aereas**. In July, **Aerolittoral** took delivery of two E190s (SN 19000554 & 19000557), and **Lufthansa Cityline** acquired two E195s (SN 19000555 & 19000558), and **CBD Leasing Corp.** leased two E190s (SN 19000556 & 19000560) to **China Southern Airlines**. **Hebie Airlines** accepted E190 (SN 19000561) in July and E190 (SN 19000566) in August. The airline ordered five E190s in

July, for a total of seven orders. Also in August, **CBD Leasing Corp.** leased E190 (SN 19000564) to **China Southern Airlines**; **Guanghui Group** took delivery of E190 ECJ Lineage executive jet (SN 19000559); **Kenya Airways** acquired E190 (SN 19000562); **BA Cityflyer** accepted E190 (SN 19000563); **Lufthansa Cityline** received one E195 (SN 19000565), and **Tainjin Airlines** bought E190 (SN 19000567).

BOC Aviation took delivery of its first EMBRAER 190-100LR (SN 19000547) ordered directly from the manufacturer in September. The E190 is the first of three aircraft to be leased to **Air Astana**, the flag carrier of Kazakhstan. The other two aircraft are scheduled to be delivered in the spring of 2013 and 2014 respectively. **BOC Aviation** is the leading Asia-based aircraft leasing company with a portfolio of 193 modern aircraft. It has 61 aircraft on firm order.

McDonnell Douglas MD-80. **SAS** agreed to sell four MD-82s and MD-87 aircraft to an unidentified purchaser. They have the option to buy a further 19 MD-82s and 10 spare engines from **SAS**. The first MD-80 was delivered in September, and the remaining three will be handed over during the fourth quarter of 2012. **SAS** will have sold the rest of its fleet if the options are exercised. **SAS** once had one of the largest MD-80 fleets in the world, and had more than 70 in service in the mid-1990s. The optioned aircraft and the engines could be delivered between the first quarter of 2013 to the first quarter of 2015.

Belavia leased the first of two EMBRAER 170-200LRs (SN 17000350) from **Air Lease Corporation** in September. It will operate on European routes from **Minsk International Airport**, in Belarus. The second E175 (SN 17000352) is scheduled for delivery later this year.

Venezuelan Airline, ConViasa, Consorcio Venezolano de Industria Aeronáutica e Serviços Aéreos S.A. took delivery of the first two EMBRAER 190-100 STDs (SN 19000509 & 19000515) in September. It ordered six E190s in July and optioned another 14 E190s. The \$271.2 million firm contract also included a flight simulator and a logistics package to support operations for the next five years. The options are valued at \$632.8 million (\$45.2 million each). **ConViasa's** E190s are configured with 104 seats in economy class.

Sukhoi Civil Aircraft delivered the 10th Superjet 100 (SN 95018) to **Aeroflot** in September. **Armavia** is disputing the delivery of its second Superjet 100. The Armenian flag-carrier stopped operating its first aircraft saying that the Superjet's technical performance is the cause of the disagreement. **Sukhoi** said the real problem is financial arrangements. The first jet has debt attached to it which means **Armavia** can not give back the aircraft if it rejects the contract. Both **Armavia** aircraft are parked at **Zhukovsky Airfield** near Moscow.

Turboprops

ATR delivered two ATR 72-600 (SN 1027 & 1033) to **Azul Linhas Aereas** in July, and the **Italian Navy** received one -600 (SN 1031). The mission equipment is being installed at Naples. Also in July, **Royal Air Maroc Express** acquired two -600s (SN 1034 & 1035). **UTair** accepted one -500 (SN 1036) in July and another -500 (SN 1037) in August. **Passaredo Linhas Aéreas** acquired its third -600 (SN 1040). **Avation Plc** took delivery of -600 (SN 1025) in August and leased it to **Skywest Airlines**. The ATR 72 is operated for **Virgin Australia**. The plane was the first ATR 72-600 to be delivered in the Asia Pacific region. **Avation** placed firm orders for nine ATR 72-600s to be operated on Australian

August-September 2012

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regional routes and has options to purchase another eight ATR 72-600s. The company has already placed six ATR 72-500s in Australia as part of the agreement.

Bombardier delivered two Dash 8Q-402 NextGens (SN 4414 & 4415) to **QANTASlink**, Australia, in July. The planes are operated by **Sunstate Airlines**. All **Nippon Airways/ANA Wings** took delivery of Q400NG (SN 4416) in August. **Bombardier** delivered the fourth of eight Q400NGs (SN 4417) to **Eurolot**, Poland, and Q400NG (SN 4418) to **Luxair**.

Viking Air delivered DHC-6-400 (SN 857) to a Turkish operator in July and -400 (SN 859) to an operator in Papua New Guinea.

Antiques and Other Junque

Reliance Aircraft International (RAI) acquired one ex-**Delta** 757-200ER and one ex-**Southwest** 737-300 for disassembly. The Austin-based company purchased the plane for disassembly and parts resale. **RAI** was formed in 2011, and specializes in aircraft purchase for disassembly, inventory parts consignment and inventory evaluation of all fleet types. The company acquired seven aircraft (A300-600, 757, 737-300/400 and MD-82) in its first year and half of business.

A J Walter Aviation recently completed the part-out of two Boeing 737-600s purchased from **Austrian Airlines**. Both aircraft were delivered to **eCube Solutions**, an aircraft end of life management company in Wales, where the disassembly process was performed. The parts recovered are being certified and fed into the **AJW** inventory reserves for sale, exchange or loan to the company's significant 737 NG customer portfolio.

GA Telesis is adding three ex-**Cathay Pacific Airways** 747-400s to its inventory and it has the option to buy 15 additional -400s. The -400s are powered by both RB211 and PW4056 engines. The first aircraft entered the **GA Telesis**' disassembly production line in Kemble, U.K. The disassembly and remarketing will be led by **GA Telesis**, and the first few aircraft will be dismantled by **Air Salvage**.

Accidents and Safety

From Aviation Safety Foundation

Pakistan International Airlines - PIA ATR-42-500 (AP-BHJ, SN 657) was damaged after landing at **Lahore Airport**, Pakistan, on August 31. No injuries among the four crew and 42 passengers were reported. The ATR-42 ran off the runway and the right hand main gear collapsed.

ATR September Deliveries. **GE Capital Aviation Services (GECAS)** leased one new ATR 72-600 to **Azul Linhas Aéreas Brasileiras** in September. The lease is part of a five-plane purchase and leaseback transaction. The aircraft come from **Azul's** existing order book with ATR. The other four ATRs will be delivered through April 2013. Further, **GECAS** is leasing three aircraft to **Trip Linhas Aereas**. The ATRs will come from **GECAS'** existing order book.

ATR delivered the very first ATR 72-600 to an Asian carrier, **UNI Air**, on September 27. The Taiwan-based carrier is a regional subsidiary of **EVA Air**. The airline ordered 10 ATR 72-600s, and will use them to replace its fleet of Dash 8 Q-300 turboprops.

Mombasa Air Safari Let L-410UVP-E9 (5Y-UVP, SN 912627) crashed at the **Ngerende Airstrip** in the **Masai Mara Game Reserve**, Kenya, after it tried to take off on August 22. The pilots apparently lost control of the airplane. Both pilots and two passengers were killed and the other seven passengers were injured.

Alfa Airlines Antonov 26-100 (ST-ARL, SN 2606) crashed near **Talodi, Sudan**, on August 19. All 32 on board, including many Sudanese government officials were killed when the An-26 flew into a mountain during a dust storm.

Sky Airline Boeing 737-230 (CC-CRQ, SN 22135) was substantially damaged during its landing at **La Serena-La Florida Airport**, Chile, on July 18. None of the 84 passengers nor crew were injured. The right hand wing tip struck the runway, damaging the wing tip and flap fairing.

Skywest Airlines Canadair CL-600-2B19 Regional Jet CRJ-200ER (N865AS, SN 7507) was substantially damaged when it ran into a building after being stolen at night. A commercial pilot stole the parked CRJ-200 at **Saint George Municipal Airport**, Utah, on July 17. He started to taxi the plane, but it struck the terminal building and ended up in a parking lot. The pilot then committed suicide in the plane.

DOSAAF L-410UVP-E3 (RF-00138, SN 871908) was substantially damaged in a hard landing at **Bolshoe Gryzlovo Airport** near Pushchino, Moscow region, Russia, on July 22. The airplane's nose, fuselage and left hand propeller were damaged. The captain was killed and the copilot was injured.

Sita Air Dornier 228-202 (9N-AHA, SN 8123) crashed immediately after take off from **Kathmandu-Tribhuvan Airport**, Nepal, on September 28. It is speculated a bird strike took the plane down. All three crew and 16 passengers were killed.

Syrian Arab Airlines Airbus A320-232 (YK-AKF, SN 1117) was damaged in a mid-air collision with a Syrian military helicopter over Duma, Syria, on September 20. The helicopter struck the tail of the A320, lost control and crashed. The A320 made a safe landing at Damascus, with the top of the vertical stabilizer sheared off. None of the A320's occupants were injured, but everyone on the helicopter were killed.

Petropavlovsk-Kamchatsky Air Enterprise Antonov 28 (RA-28715, SN 25-1AJ006) crashed near **Palana Airport**, Kamchatka peninsula, Russia, on September 12. The airplane flew into the wooded slope of Mount Pyatibratka while trying to land. All 14 people on the plane were killed.

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AVMARK's Transport Aircraft Values (TAV); reports current fair market values by year of build and projects the future value of all transport category aircraft.

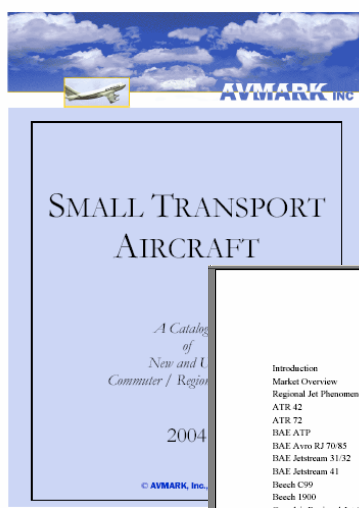
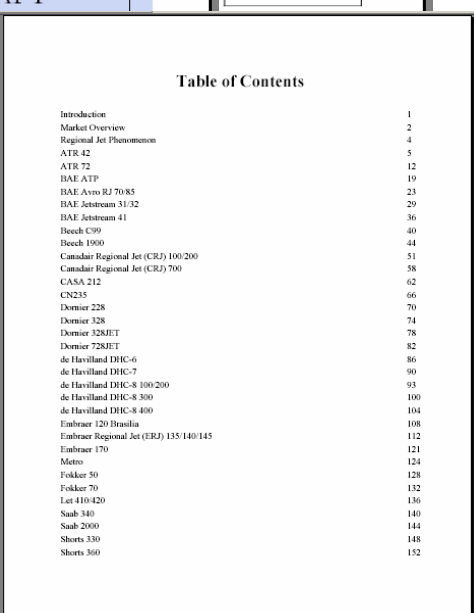
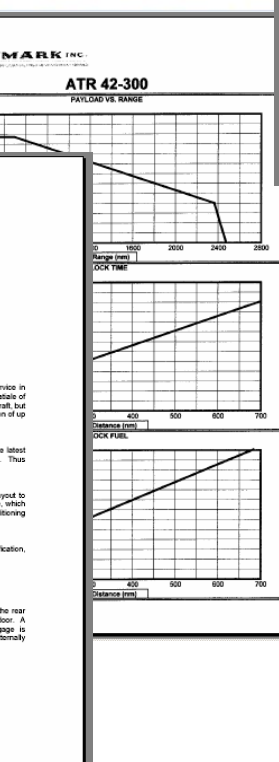
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STA is designed as an easy to use reference guide to compare the operating and cost parameters of 35 regional jet and turboprop aircraft. Information includes development history, current production status, configuration and operating performance and costs as reported to the DOT. Pictures of each aircraft are also included.

MARKET OVERVIEW

Most dynamic and fastest growing segment in the world, using old generation propeller aircraft to transport 50 million passengers using state of the art technology.

Online Association (RAA):

Online:

99%.

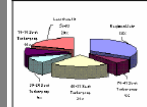


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ATR 42-300

In Service: 1985 Orders: Out of Production Deliveries: 284

Specifications	
Accommodations	40
Passengers*	40
Pilots	2
Cabin Attendants	1
Powerplant	1,800 SHP / 1,342 kW
2 Pratt & Whitney PWC120 Turboprops	4 blades
Hotstart/Propellers	
Engine Dimensions	

74 ft 5 in
60 ft 7 in
24 ft 11 in
48 ft 3 in
6 ft 5 in
6 ft 3 in
170 / 170 / 53 cu ft

38,815 lb
36,155 lb
33,510 lb
22,875 lb
10,835 lb
9,920 lb
62.83 lb / sq ft
10.22 ft/lb thrust

ATR 42-300

Standard Equipment: Right engine Propeller Brake, Airsearch Air Conditioning, Stall Warning

Optional Equipment: KLN 90A GPS/W, FMS, Area Navigation (RNAV), Microwave Landing System, VLF/Omega Long Range Navigation System, Dual Honeywell AZ-800 Digital Air Data Computers, FA System, HF Radio, Collins Avionics in place of King Avionics, CAT II

Avionics: EDZ 820 Electronic Flight Instrument System (EFIS) - 4 CRT's for dual Altitude and Heading Reference Systems (AHRS) - 5.62-800 Hz Data Computers (ADC), 1 DPE-600 Autoteiler High DPE-900 Flight Director, Dual King Gold Crow Dual King Gold Crow VHF Nav Radio, DME, Radio Altimeter, Honeywell P-800 Weather Radar

Price List

Years Built	Base (\$ mil)
85-96	3.0

Direct Operating Costs (\$ per block hour)

Utilization (Block Hours / Year)	
100	300

Average Stage Length (nm)	
100	300

Flying Operations	
Flight Crew, Salaries / Expenses	\$180
Fuel, Oil, Taxes	\$173
Other	\$3

Aircraft Costs	
Insurance	\$3
Maintenance	\$476
Depreciation	\$62
Rentals	\$318

Total Direct Operating Costs

Cost per Available Seat Mile - \$	12.33	\$ 65
Cost per Airplane Mile	\$5.67	\$4.44
Cost per Seat Block Hour	\$18.67	\$15.1

Note: Data from DOT 41line filings.



ATR 42

THE AVIONS DE TRANSPORT REGIONAL (ATR) first flew in August 1984, and entered service in December 1985 with the French regional Air. The aircraft is a joint venture between Aerospatiale of France and Aeritalia of Italy. The ATR 42's name originally designated it as a 42 passenger aircraft, but subsequent reduction of the forward baggage compartment now allows for a seating configuration of up to 50 passengers.

The baseline aircraft is the ATR 42-300/320 powered respectively by PW120/121 engines. The latest version is the ATR 42-500 powered by PW127 engines and Hamilton six bladed propellers. Thus increasing the payload to 12,015 lb and the cruise speed to 300 kts.

The standard front cargo door allows the aircraft to be quickly converted from a passenger layout to freighter. Unique among turboprops, is the integration of a Propeller Brake on the right engine, which allows running of the engine in "Idle" mode to provide aircraft electrical power and air conditioning without the inconvenience and safety hazards of a rotating propeller.

The ATR 42 and ATR 72 have a very high degree of commonality, allowing for cross-crew qualification, and a common spare parts holding.

TYPICAL CABIN CONFIGURATION

48 seats in a four abreast layout with a center aisle. Access to the cabin is by an air stair at the rear passenger door, and a modular galley in the rear of the aircraft is serviced through the same door. A standard toilet is located in the rear of the aircraft behind the passenger door. Baggage is accommodated in overhead bins on both sides of the cabin, under seat storage, in an extremely accessible forward and aft baggage compartment, and in a closet.

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Select Aircraft Type

Available Aircraft

- Airbus A300B4-600R
- Airbus A300B4-600RF
- Airbus A310-200
- Airbus A310-200F
- Airbus A310-300
- Airbus A310-300F
- Airbus A318
- Airbus A319-100
- Airbus A320-100
- Airbus A320-200
- Airbus A321-100
- Airbus A321-200
- Airbus A330-200
- Airbus A330-300
- Airbus A340-200
- Airbus A340-300**
- Airbus A340-500
- Airbus A340-600
- Airbus A350-800
- Airbus A350-900
- Airbus A380-800
- Avro RJ-100
- Avro RJ-70
- Avro RJ-85
- RAe 111-200/300/400/500

Picture



Selected

Airbus A340-300

Description

Widebody 4 Engine Passenger

Manufactured

1992 To 2006

Values

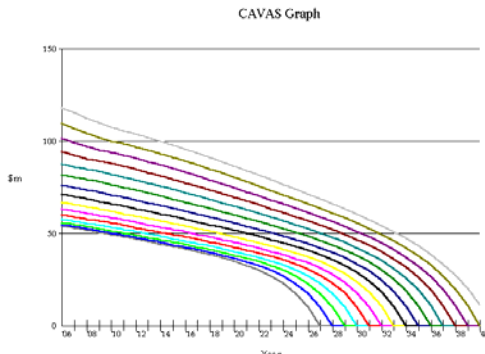
\$54.00m \$118.00m

Estimated Life

35 years File No. 013

Search Term

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CAVAS Figures

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
2006	54.00	54.61	55.83	57.66	60.10	63.34	66.80	71.07	72.94	81.43	87.52	94.23	101.54	109.47	118.00
2007	52.83	53.49	54.73	56.34	58.98	62.01	65.42	69.85	74.86	80.77	85.92	92.18	99.12	106.73	115.25
2008	51.69	52.36	53.61	55.23	57.85	60.84	64.23	68.69	73.65	79.18	84.76	90.49	96.97	104.20	112.39

Profit & Loss Report

Aircraft Type: Airbus A340-300

Period	1	2	3	4	5
REVENUES (US\$)					
Passengers	49,328,754	49,270,739	49,212,559	49,154,213	49,095,701
Freight & Mail	8,879,176	8,868,733	8,858,261	8,847,758	8,837,226
Other Revenue	986,575	985,415	984,251	983,084	981,914
TOTAL OPERATING REVENUE	59,194,505	59,124,887	59,055,070	58,985,055	58,914,841
VARIABLE EXPENSES					
Fuel	6,918,975	6,917,743	6,916,470	6,915,177	6,913,846
Landing Fees	3,021,823				
Enroute Charges	392,440				
Pax Commissions	7,399,313				
Freight Commissions	1,331,876				
Food & Supplies	3,999,194				
Passenger Liability Insurance	379,590				
TOTAL VARIABLE COST	23,443,212				
SEMI-VARIABLE EXPENSES					
Crew Salaries & Expenses	5,177,760				
Maintenance & Engineering	587,650				

Profit & Loss Report

Aircraft Type: Airbus A340-300

Period	1	2	3	4	5
FIXED EXPENSES					
Station Overhead	346,597	345,923	345,249	344,575	343,901
Maintenance Burden	176,295	351,824	526,586	700,581	873,810
Other Overhead	0	0	0	0	0
TOTAL FIXED COST	522,892	697,747	871,835	1,045,156	1,217,711
TOTAL OPERATING COST	31,464,497	32,185,749	32,903,601	33,618,052	34,329,104
General and Admin. Allocation	1,573,225	1,609,287	1,645,180	1,680,903	1,716,495
TOTAL COST	33,037,722	33,795,036	34,548,781	35,298,955	36,045,599
OPERATING PROFIT OR LOSS	26,156,782	25,329,851	24,506,290	23,686,100	22,869,282
D-CHECK ADJUSTMENT					
Cumulative Hours	4,830	9,650	14,459	19,257	24,045
Cumulative Dollars	315,000	0	0	0	0
ADJUSTED CASH FLOW	25,841,782	25,329,851	24,506,290	23,686,100	22,869,282
AIRCRAFT LIFE ADJ. CASH FLOW	25,841,782	25,329,851	24,506,290	23,686,100	22,869,282

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