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Newsletter

Market Comment

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Russian Airline Fleet of Western Aircraft is Shrinking. Airlines are returning **Airbus** and **Boeing** jets to lessors this year. **Russian Federal Aviation Authority** spokesman **Sergey Izvolskiy** said the fleet had declined by a net of 11 jets between August 2014 and April 1. The **Boeing** fleet saw a net decline of 10 airplanes to 332, while the number of **Airbus** jetliners declined by one to 281. The combined fleet of western jets had grown more than 10-fold from 1995 until now. **OA UTAir Aviation** is the country's third-largest carrier and it returned the most aircraft, shrinking its fleet to 71 planes from 115 a year ago. It returned 12 A321s to lessor **VEB Leasing**, including two that were newly delivered. It stored six nearly new 737-800NGs and retired two 737-500s. It also grounded four 767-200ERs, 14 **Bombardier** CRJ200s, and retired its 14 oldest ATR 42s and ATR 72s. The carrier also delayed taking eight A321ceos until 2017. Russian airlines have cut their regional aircraft fleet by about 100 airplanes according to the **Aviaport.ru** website. State-owned **Aeroflot** and its subsidiary **Pobeda** are still adding new leased A321s and 737-800s while its competitors divest of their leased aircraft. The 50 percent slump in oil prices and the Russian rouble have caused severe problems for the nation's airlines, which are seeing a decline in traffic at the same time their costs in dollars are ballooning. Passenger numbers fell 2.3 percent to 17 million in the first quarter, marking the first decline in traffic since the height of the recession in 2009. The decline in the rouble was exacerbated by sanctions imposed on Russia by Western governments over the Ukraine and Crimea crisis. It is now too costly for many Russians to fly and fewer Western tourist and business people are visiting the country.

Bloomberg said **Airbus** and **Boeing** are pulling out the stops to hang on to their outstanding orders, and Russian carriers may seek to sell and leaseback the new jetliners which are scheduled for short-term delivery to retain cash, while still getting the airplanes. In April, three airlines, **Aeroflot**, **Pobeda** and **Transaero Airlines** each leased a new 737-800 from local and Western lessors. **Sberbank Leasing** leased a 737-800 to **Transaero**. Two out of 14 **Transaero** 777-200ERs and six of its 20 747-400s were grounded in early 2015. So far, **Aeroflot** has kept its Western fleet in the air. The airlines have begun talks on restructuring leasing payments because many leased aircraft are older and less fuel efficient than new ones and are also easier to get rid of when a quick capacity adjustment is required. So far, the Western lessors have not

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expressed alarm about the lease returns, unlike the **SpiceJet** crisis, which was fodder for aviation pundits.

Airbus CEO **Fabrice Bregier** said that the Toulouse-based company was in discussions with carriers seeking to defer taking aircraft they've previously ordered. Mr. **Bregier** said, "a number of airline customers are seeking deferrals, in which orders remain on manufacturers' books while deliveries slide back months or years. It's a situation that I hope is temporary. We're not in the game of insisting on maintaining every last clause in the contract. We want to help them find solutions and remain their partners of choice," he said. **Boeing** stands by its forecast that Russia and the former Soviet states would need 1,330 jets worth \$150 billion in the next two decades. Its spokesperson in Moscow said it was working as usual there. Russia's top two airlines, **Aeroflot** and **Transaero** said they have not reviewed their plans to buy new aircraft. **Transaero** has a backlog of four **Boeing** 747-8 and four **Airbus** A380 jumbo jets, but demand for extra-large, long-range aircraft is likely to suffer most as discretionary spending on vacations and other non-essential travel dries up. After much speculation about **Transaero's** plans, **Vladimir Miklushevskiy**, the governor of Primorsky Krai in Russia's Far East, said "In summer 2015, services will also be operated using the largest aircraft in the world, the A380."

Airlines tend to take deliveries of new jets even when demand is ebbing, because they are more fuel efficient and the airline would incur cancellation penalties that are punitive. The airline can always try to sell the delivery position or the completed airplane. **Airbus** is still optimistic. Its spokesperson said, "Experience shows us that the market will rebound, regardless of the reason for the decline. We're sure the Russian aviation market has growth potential." **AVMARK** would like to add "Eventually."

Airbus Orders

Airbus Sold 107 A320 Family and One A330 Aircraft during April, and the month's 62 deliveries covered most of its current product lines. The new orders boosted **Airbus'** backlog to 6,399 aircraft, a new industry-record. This equals approximately 10 years of production at current rates for some of its jetliner families. The company's total gross orders this year reached 229 jetliners. Taking 20 cancellations in the first quarter into account, **Airbus** reported net orders of 209 for 2015.

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Avianca signed a purchase agreement for two A319neos and 98 A320neos, which was the largest single order in Latin American aviation history. The airline confirmed a Memorandum of Understanding that was announced in February, and this raised the **Avianca** airline group's firm **Airbus** orders to 291, including 276 for the A320 Family and 15 for the A330 Family. Two leasing companies, **Avolon** and **BOC Aviation**, purchased four A320ceo (current engine option) aircraft, and two A320ceos respectively. The A318 program is still alive. One ACJ318 corporate jet order by an unnamed private customer was announced on April 1, and it was delivered on April 9. **Middle East Airlines** bought the only widebody sold in April, the airline's fifth A330-200.

Airbus delivered 50 A320 Family aircraft, nine A330s and three A380s during the month. The manufacturer handed over the second A380 to **Etihad**, the 60th A380 to **Emirates**, and the last one to **Lufthansa**. **Turkish Airlines (THY)** acquired one A330-200F freighter and three A330-300s in a new record for A330 deliveries. Other notable delivery milestones were the delivery of four A320s to **Qatar Airways** on the same day, as well as five A320s to **easyJet**, and the six A321s to **American Airlines** during the month. **Airbus** also provided the first A321 to **Volaris**, through a lease from **Air Lease Corp.** and the second A320 for **Nepal Airlines**. The latter plane was delivered with a full load of relief supplies after the country's devastating earthquake.

Avianca has signed a purchase agreement for 100 A320neo Family aircraft worth approximately \$10.0 billion at list priced. This was Latin America's largest single order to date. The agreement includes

Airbus Orders, Deliveries and Backlog April 2015

APR ORD	APR DEL	APR CANX	TOTAL ORD	TOTAL DEL	BACK LOG
A318					
1	1	-0-	80	80	-0-
A319					
-0-	2	-0-	1,474	1,442	32
A319neo					
2	-0-	-0-	49	-0-	49
A320					
6	29	-0-	4,745	3,942	803
A320neo					
98	-0-	-0-	2,934	-0-	2,934
A321					
-0-	18	-0-	1,595	1,080	515
A321neo					
-0-	-0-	-0-	811	-0-	811
A330					
1	9	-0-	1,357	1,183	174
A330neo					
-0-	-0-	-0-	145	-0-	145
A350					
-0-	-0-	-0-	780	2	778
A380					
-0-	3	-0-	317	159	158
This Month			This Year		BL
108	62	-0-	209	196	6,399

Airbus sold 15,450 aircraft and delivered 9,081 as of April 30, 2015. Twenty orders were cancelled. Total orders, deliveries and backlog include cancellations and order changes.

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A319-neo, A320neo and A321neo aircraft, but it was officially recorded as two A319neos and 98 A320neos. **Airbus** offers liberal options to switch from one model to another within the A320 Family. The new order allows **Avianca** to operate one of the youngest fleets in the region. The airline group intends to replace its **Fokker F.70s** and **F.100s**, and older A320ceo Family airplanes that are operated from its Bogota, Lima and San Salvador hubs, by **Avianca**, **Avianca Brasil** (formerly **Oceanair**), **Avianca Ecuador** (formerly **Aero-Gal**), and **Avianca Central American** (formerly **TACA**). The first jets will be delivered in 2019. The **Avianca** airline group has ordered 291 **Airbus** aircraft, including 143 A320ceo Family, 133 A320neo Family, and 15 A330 Family jets. **Avianca** was established in Colombia in 1919, and is the oldest airline in the Americas, and is the second oldest airline in the world, after **KLM**. To date, **Airbus** has won 345 firm orders for the A320neo program from six customers in Latin America; **Avianca**, **Azul**, **Interjet**, **LATAM Airlines Group**, **VivaAerobus** and **Volaris**. It has sold more than 950 aircraft and has nearly 500 in backlog. There are more than 550 **Airbus** aircraft operating throughout Latin America and the Caribbean. In the last 10 years, **Airbus** has tripled its in-service fleet, and delivered more than 60 percent of all aircraft operating in the region.

Airbus Group reported robust first quarter 2015 results with new orders worth €21 billion. The order book value rose to €955 billion from year-end 2014's €858 billion. **Airbus** received 101 net commercial aircraft orders in the quarter, including 34 A330 Family aircraft. **Airbus Helicopters** received 86 net orders, including 49 H145s and 19 H175s in the quarter, while in April, Poland tentatively selected the H225M Caracal for its multi-role military helicopter. **Airbus Defence and Space's** order intake by value rose 16 percent, with the sale of seven light and medium military transport aircraft. The **Group's** revenues totaled €12.1 billion due to deliveries of 134 commercial airplanes, including one A350 XWB and four A380s by **Commercial Aircraft**, worth €8.6 billion. Net income increased by 80 percent to €792 million. The finance result was -€366 million, which included the write off of €229 million from foreign exchange revaluation linked to the weakening of the euro.

MEA - Middle East Airlines firmed up one of the two A330-200 options that it took as part of an order for four A330s and four A321-200s placed in 2006. The Lebanese flag carrier currently operates four of the type and will take delivery of the new one in 2017.

BOC Aviation order another two A320ceos in April, adding to the 43 A320 Family aircraft it bought at the **Farnborough International Airshow 2014**. The Singapore-based lessor now has ordered 153 A320ceos and 18 A320neos. As of April 30, 2015, **BOC** has 161 **Airbus** aircraft in its fleet and another 103 on order.

Avolon Aviation, an international leasing company, ordered its first four A320ceo aircraft. It committed to buy 15 A320neos at the **Farnborough International Airshow** in July 2012. In December, the lessor increased its firm order to 20. **Avolon** has also ordered and taken delivery of four A319ceos and four A321ceos. It was also a launch customer for 15 A330-900s in December 2014.

Atlantic Airways signed a Memorandum of Understanding to purchase its first A320ceo. The Faroe Islands carrier expects to conclude a final agreement in June, and will receive the airplane in 2016. No engine type has been selected, but the airline's three A319s are fitted with **CFM International** CFM56 engines. The jet will be fitted 168 seats, an increase of 24 from its 144-seat A319s. The A320 will serve

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its route to Copenhagen. The airline leases two A319s (SN 2186 & 3905) until September 2016 and it may extend one lease to secure sufficient capacity. **Atlantic** purchased A319 (SN 5079) from **Airbus** in March 2012.

Tigerair, Singapore, said it finalized an agreement to firm up two A320neo options, bringing its firm orders to 37. **Tigerair** retained 11 options. The airline secured the options when it placed a firm order for 37 A320neos in March 2014. Its 50 A320neos will be powered by **Pratt & Whitney** PW1100 GTF engines and they will arrive between 2018 and 2025. **Tigerair** and its sister company, **Tigerair Australia**, each have two A320neos on order.

EasyJet committed to buy the higher-density, 186-seat A320neo. The standard A320 can carry 180 passengers. The U.K. low-cost carrier will receive its first higher-capacity jet in May 2016, and the rest of its backlog will be fitted with 186 seats after that. The airline will also retrofit its current A320s with six more seats from early 2016 through the summer of 2018. The higher-density seating will save the airline 2 percent over the current configuration. As part of **Airbus' Spaceflex** concept, the rear lavatories are moved against the rear pressure bulkhead and a smaller galley is installed, allowing another row of seats to be added. **EasyJet** has 62 A320neos and 100 A320neos on order. It will have 148 A319s and 93 A320s in service by the end of its financial year. **Airbus** launched the high-capacity cabin in mid-2014 and offered it to the Spanish low-cost carrier, **Vueling**, to win an order for 30 A320neos and 32 A320neos. The **International Airlines Group (IAG)** subsidiary also optioned 58 more aircraft, and **IAG** took purchase rights for 100 additional A320neos. The aircraft on firm order will be delivered between 2015 and 2020. Central European budget airline **Wizz Air** will fit its A321s with a high-density 230-seat configuration. The standard A321 carries 220 seats.

Airbus' Global Market Forecast (GMF) reported that the fleet of passenger aircraft that serve the Australia South Pacific region will grow 70 percent from the current 700 aircraft to over 1,200 by 2033. In 20 years, the fleet will increase by 146 single-aisles and 353 widebodies. The number of widebody aircraft will double from 290 today to over 640 in two decades. **Airbus** said international traffic serving the Australia-South Pacific region will grow annually at 4.5 percent. The region's propensity to travel (over three trips per capita) is almost double that of North America and it will remain the world's highest at more than four trips per capita by 2033. By then, the number of aviation mega-cities will double to 91 globally, and Sydney and Melbourne will be joined by Perth, Brisbane and Auckland. In the last 10 years, Australia's domestic traffic increased by nearly 90 percent.

Airbus Launched the ACJneo (New Engine Option) Family with the order for an ACJ320neo from **Acropolis Aviation**, Farnborough, England. **Acropolis' ACJ320neo** will seat 19 passengers, and it will be delivered in the fourth quarter of 2018. The cabin outfitter and engine choice will be decided later. The ACJ320neo will be able to fly 25 passengers for 6,000 nm/11,100 km. It will feature new, more efficient engines, wingtip-mounted Sharklets, and a more comfortable cabin. The new ACJ319neo will be fitted with new engines, Sharklets and an eight-passenger cabin, and it can fly 6,750nm/12,500km. More than 170 corporate jets have been sold to date, and they are flying on every continent, including Antarctica.

Airbus Expects Chinese Carriers to Up-Gauge Their Fleets. At the **ISTAT Asia** conference, **Airbus Group China** Chairman **Laurence Barron** said, "There is a need for larger aircraft in China. An airline that ordered A319s in the past now orders A320s. Similarly, an airline that previously ordered A320s

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now orders A321s. He said that demand is now focused at the 140-240-seat segment rather than in the 140-160-seat segment. The **Civil Aviation Administration of China (CAAC)** reported that domestic traffic in China rose 10.1 percent last year, and 400 million passengers were boarded. **CAAC** forecast 1.5 billion passengers in China by 2033. China's current 0.25 trips per capita will match Europe's 0.95 trips per person per year by that time, he said. The fleet of **Airbuses** in Greater China reached more than 1,130 aircraft by April 2015, including 980 A320 Family aircraft, Mr. **Barron** said. China will need around 5,300 new passenger aircraft and freighters in the period 2014-2033. Of those, 3,500 will be narrowbodies, and another 1,500 will be widebodies, including more than 300 very large aircraft, **Airbus** forecast. **Airbus** said it was talking to Chinese carriers about the re-engined A330neo, but there was little interest in its A330 regional. That airplane is essentially an A330 with an extra seat added to the tourist 8-abreast seat row. The A330 regional will be certified at a lower-gross take-off weight, making the plane more cost effective for shorter-range, high-density domestic services.

Boeing Orders

Boeing Sold 37 Aircraft in April. FedEx bought its 53rd new 767-300F and **United Airlines** exchanged 10 787 orders for 10 new 777-300ERs. It now has 10 777s and 38 787s on backlog. Late in the month, an **Unidentified Customer** ordered nine 737 MAX aircraft, another **Unidentified Customer** bought five 777-300ERs and a third purchased six 787-8s. **Swiss International** finalized its order for three 777-300ERs, and a **Business Jet / VIP Customer** ordered one 787. **Air Tahiti Nui** signed for two 787s, previously listed as unidentified. One customer cancelled nine 737s. **Boeing** logged 153 new orders this year, including 80 737s, three 747Fs, one 767-300F, 25 777s and 44 787s. Twenty-five existing orders (14 737s and 11 787s) were cancelled so **Boeing's** net total was 128 sales. The manufacturer delivered 66 new airplanes in April, including 43 737s, two 747s, one 767F, nine 777s and 11 787s.

United Airlines converted 10 of its firm 787-9 orders to the 777-300ER. The first 777 will be delivered in 2016, and the deal was valued at \$3.3 billion (\$330 million each) at list prices. **United** now has 11 787-9s and 27 787-10s in backlog. The new 777-300ERs will be based in New-

Boeing April 2015 Orders, Deliveries					
APR ORD	APR DEL	APR CANX	TOTAL ORD	TOTAL DEL	BACK LOG
			737		
9	43	-9	12,715	8,514	4,201
			747		
-0-	2	-0-	1,540	1,507	33
			767		
1	1	-0-	1,115	1,073	42
			777		
18	9	-0-	1,852	1,296	556
			787		
9	11	-10	1,104	269	835
This Month			This Year		BL
37	66	-19	114	250	5,667
Boeing sold 25,856 aircraft and delivered 20,189 as of April 30, 2015					
The Current Program includes sales and deliveries of 737s, 747s, 767s, 777s and 787s.					
Sales totals include 25 cancellations.					

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ark, New Jersey, and used for inter-national services to Asia and Europe. They will be delivered in 2016.

Air Tahiti Nui finalized an order for two 787-9 Dreamliners, list priced at \$514 million, on April 30. The new jets will arrive at its base in Papeete in May and July of 2019. The French Polynesian flag carrier also leased two additional 787-9s from the **Air Lease Corporation**, and they will be handed over in October 2018. **Air Tahiti Nui** will phase out its current fleet of five A340-300s after the new 787s enter service. Four airframes (SN 385, 438, 446 & 668) will be scrapped and the other (SN 395) will be returned to its lessor.

Swiss International Air Lines, and its parent company, **Lufthansa Group**, finalized an order for three additional 777-300ERs, valued at \$990 million at current list prices, on April 27. **Swiss** bought its first six 777-300ERs in 2012, and the type will form the backbone of the airline's long-haul fleet. The first of the nine aircraft (HB-JNA, SN 44582) is expected to arrive in January, 2016 and it will be operated under wet-lease by **Swiss Global Air Lines** on the Zurich-New York route, beginning in February. Five more 777s will be delivered in 2016 and the latest three to be ordered will arrive in February and April 2017, and March 2018.

TUI Group finalized an order for one 787-9 Dreamliner and took an option for a second 787-9 in May. **TUI Group** also substituted two unfilled 787-8 orders for two 787-9s. The firm order is valued at \$257 million at current list prices. The European leisure group will operate a fleet of 13 787-8s this summer and with today's announcement will add three 787-9s within the next three years. There are six airlines in the **TUI Group**, including **ArkeFly**, **Corsair**, **Jetairfly**, **Thomson**, **TUIfly** and **TUIfly Nordic**, and they operate 144 medium and long-haul aircraft to more than 180 destinations around the world. To date, **Boeing** has delivered more than 165 airplanes to the **TUI Group** airlines; the group has 60 737 MAXs and now two 787-8s and three -787-9s on backlog.

One Unidentified Customer ordered three 737s in mid-May. The manufacturer has sold 83 737s, three 747-8Fs, one 767-300F, 25 777s and 45 787s to date, for a total of 157 new orders. It lost 25 existing orders which lowered the net total to 132.

Air Austral signed for two **Rolls-Royce**-powered 787-8s in February and it will take delivery of early-model aircraft (Line Numbers 15 and 22) in 2016. The French holiday carrier will configure its 787s

Boeing Business Jets announced two new BBJ orders at the **European Business Aviation Convention & Exhibition (EBACE)**, Geneva, Switzerland. One undisclosed customer has selected a 737-700-based BBJ and another bought one BBJ 787-8 Dreamliner. These were the first Business Jet sales in 2015. **Boeing Business Jets** also announced the first BBJ 747-8 entered into service in early 2015 and the first BBJ 787-9 Dreamliner was delivered to a completion center for its custom interior installation.

Boeing Business Jets announced at **EBACE** that Split Scimitar Winglets are now standard on new BBJs. Split Scimitar Winglets were designed, developed and certified by **Aviation Partners Boeing (APB)** and will be offered for retrofit on in-service BBJs by **Aviation Partners Inc. (API)**. The Split Scimitar Winglet gives the BBJ family up to an additional 2.2 percent of range capability on a 6,000 nautical mile mission. It takes the existing blended winglet and adds a scimitar tip and downward strake. The first in-service BBJ to have Split Scimitar Winglets installed was on static display at the conference.

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with 262 seats in two classes, including 18 in the business-class cabin. The airline will lease two 777-300ERs from **Air Lease Corp.**, and will take delivery of them in 2016.

Ruili Airlines, AVIC International Leasing and Minsheng Financial Leasing teamed-up to buy 60 **Boeing** 737 MAX jets for 38 billion yuan (\$6.13 billion), the official Chinese press reported. **Ruili** is a privately-owned start-up budget carrier that has one 737-800 and four 737-700s in its fleet. The 16 month-old airline is based in southwestern China's Yunnan province and intends to expand its fleet to 56 aircraft by the end of 2025. The airline will lease the 737 MAX from its partners. **Boeing** has not yet confirmed the order.

Southwest Airlines (SWA) Will Switch All 31 737-700 Orders due for delivery in 2016 to the larger 737-800, **Gary C. Kelly**, Chairman of the Board, President, and CEO, said in a statement on May 13. He told the Board of Directors, "Our 2015 fleet and capacity plans remain unchanged with available seat mile (ASM) growth of approximately 7 percent, year-over-year, and roughly 700 aircraft projected by year-end. As an extension of our fleet modernization initiatives, we have designated our 31 **Boeing** firm orders in 2016 as 737-800s rather than 737-700s, which will bring our -800 fleet to 135 by the end of 2016. We are planning to grow our total fleet by two percent in 2016, year-over-year. With a significant number of planned retirements, we expect 2016 net aircraft additions to bring our fleet to roughly 715 aircraft by the end of 2016." **Southwest** currently operates 96 737-800s. As of April 30, **Boeing's** official website stated that **SWA** had 56 737-700s and 10 737-800s on back order. **Southwest** has orders for 30 737 MAX-7s, 170 MAX-8s and options for 191 MAX-8s. The switch to the -800 will add 32 seats per plane, a 22 percent increase from the -700's capacity. **Southwest's** plan is to expand the number of flights to Mexico, Central America and the Caribbean with the larger plane. The airline will decide whether to switch 25 -700 orders to the larger -800s in 2017 and 2018, he said. **Southwest** took the last new -700 in 2011, and it acquired least 45 used -700s. The airline said in its statement, that it had 19 737-800 firm orders to be filled in 2015, and it intended to acquire 19 pre-owned 737-700 aircraft this year. In 2016, the company intends to acquire four pre-owned 737-700s, as well as the 31 new -800s.

China's COMAC C919 Airliner's First Flight was delayed and the first deliveries could be pushed back by up to two years. The 150-seat narrowbody aircraft was originally scheduled to fly by the end of 2015, but it would be delayed to the first half of 2016. The first delivery was scheduled for 2018, and that milestone is also likely to slip, until 2020. That means the C919 will arrive later, and be technologically inferior to the re-engined and improved A320neo and 737 MAX, which will enter service by the end of 2017. **COMAC** won commitments for 450 C919s, from Chinese airlines and leasing firms backed by Chinese banks. Further delays will make it harder for the plane to make an impact beyond its home market. The final assembly of the first aircraft is taking longer than expected at Shanghai's **Pudong Airport**. One unnamed source said "COMAC is proceeding extremely cautiously with the first aircraft. It is deliberately checking everything... to ensure that there are no safety issues." Another source said, "Any delay is unfortunate, but it is far more important to have an aircraft that is safe and reliable. China is developing the C919 with long-term goals in mind, and it must be patient and careful." For China, the development of a mature aerospace industry is key to economic growth.

Boeing's Smallest 737-700 Jetliner faces an uncertain future if **Southwest Airlines** switches all its orders to larger models. According to the manufacturer, **Southwest** had 56 outstanding orders for the 143-seat 737-700 and 30 orders for the 737 MAX-7. The manufacturer has a total of 86 outstanding -700

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orders, including three -700Cs, four -700BBJs. The three -700Cs will be delivered in 2016 and if **Southwest** drops all of its -700s for the -800, **Boeing** will have fewer than 34 -700s on order by the end of next year, out of total backlog of 1,453 Next Generation 737s. **Southwest** has rights to convert some of its 30 MAX 7s orders to the larger MAX-8s. The airline said, "We really don't have a decision on whether we want 8s or 7s because the 7 is not available until 2019." The airline accounts for half of the MAX 7 aircraft on order, and Canada's **Jetlines** (5) and **Westjet** (25) have the rest. One wonders if **Boeing** will continue with the MAX-7 if **Southwest** cancels half the total backlog. **Boeing** said the MAX-7 orders account for only 2 percent of the backlog of 2,724 of the redesigned 737 MAX. **Boeing** Marketing Vice President **Randy Tinseth** said, "It's clear to us there is a place for the MAX-7. It's something that's not going away."

Regional Report

Swiss International Air Lines will be the launch carrier for the CSeries twinjet, when it takes delivery in the first half of 2016. The **Lufthansa Group** ordered 30 of the 110-seat CS100 type for **Swiss** in 2009. **Bombardier** hopes to certify the CS100 by the year's end. It will display the aircraft at the upcoming **Paris Airshow** in June and conduct a demonstration for **Swiss** in Zurich shortly afterwards.

Swiss CEO **Harry Hohmeister** said flight-test data showed that the aircraft was behaving "very much in line with our performance expectations. We are looking forward to being both the launch customer and the first airline that will operate the CS100."

Bombardier will debut both CSeries variants at **Paris Airshow**. The first CS100 test aircraft with a completed interior (FTV-5) will be on static display, and the first CS300 test aircraft (FTV-7) will participate in the flying display. This is the first time the CSeries will be seen at a major airshow. The CS100 test craft was supposed to fly to **Farnborough Airshow** last year, but an engine problem grounded **Bombardier's** test fleet. The company's new management and sales team will be on hand to promote the CSeries. Two months ago **Bombardier** appointed former airline and leasing company executive **Fred Cromer** to be the new head of commercial aircraft. He replaced former automobile industry executive **Mike Arcamone**. **Colin Bole** took the commercial aircraft salesman job on May 11 after a stint with **Intrepid Aviation** as chief commercial officer. **Bombardier** also will display the CRJ1000 regional jet and the Q400 turboprop at Paris.

United Aircraft, **New Century International Leasing**, China, an unnamed Russian-Chinese investment fund and the Xixian, Shaanxi Province's local management committee have signed a provisional four-party agreement to establish a new leasing company for the **Sukhoi** Superjet 100. It intends to order 100 SSJ aircraft and focus on sales to Asian customers. **Sukhoi** parent, **United Aircraft** said the order will be worth \$3 billion (\$30 million each) and the planes would be delivered over a three-year period. The Xixian administration will provide land for the required infrastructure, including a flight-training and servicing center, spares warehouses and possible interior fitting and painting facilities. **United Aircraft** President **Yuri Slyusar** said his company had to "rethink the approach" to marketing the Superjet internationally. The agreement was reached quickly, and will strengthen the prospects for the Russian domestic civil aviation industry. Further, he said the joint venture will result in a "highly-competitive" leasing operation allowing the Superjet to take a "significant share" of rapidly-developing aviation markets in China and Southeast Asia. This may reflect the current Western sanctions on Russia and President **Vladimir Putin's** apparent "pivot toward Asia."

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Bombardier's first quarter, 2015 financial results reported revenues of \$4.4 billion, equal to the \$4.4 billion for the same period last fiscal year. Earnings before financing expense, financing income and income taxes (EBIT) totaled \$228 million, or 5.2 percent of revenues, up from the \$207 million (4.8 percent) for the same period last fiscal year. EBIT before special items totaled \$237 million, a rise from last year's \$219 million. Net income totaled \$100 million, down 15 percent from \$115 million in the same period of 2014. On an adjusted basis, net income rose to \$170 million from the 2014 first quarter income of \$151 million.

Embraer's firm order backlog at the end of the first quarter of 2015 was \$20.4 billion, up \$1.2 billion from the \$19.2 billion at the end of the first quarter in 2014, and down \$500 million from the \$20.9 billion at the end of 2014. As a result of aircraft deliveries and revenues from the company's **Defense & Security** business, the first quarter revenues were \$1.056 billion. Net loss attributable to **Embraer** shareholders totaled \$61.7 million, and adjusted net income was \$48.3 million, which excludes non-cash deferred income taxes and social contribution.

Embraer Forecasts 2,060 New Regional Jet Deliveries in the 70- to 130-seat segment, to the North American market by 2034. This will be nearly 35 percent of the total worldwide demand for aircraft and the planes are list priced at \$96 billion. **Embraer's 2015 Market Outlook** said 47 percent of the region's new deliveries are expected to support market growth while the other 53 percent will replace ageing aircraft by 2034. Full-service carriers will restructure their intra-regional hub-and-spoke operations and will replace 50-seat jets with higher-capacity regional jets fitted with premium seating. The E175 is now the best-seller in the 80-seat category and won 80 percent of net orders in the region since 2013. **Embraer's** E-Jets family has logged more than 1,560 orders and over 1,100 deliveries since its launch at **Paris Airshow** in June 1999. The type entered revenue service in 2004, and E-Jets have achieved a global market share of approximately 50 percent of orders and 60 percent of deliveries in the 70- to 130-seat segment.

Tianjin Airlines, China, a subsidiary of the **HNA Group**, signed the final agreement for 20 E195s and two E190-E2s, with an estimated value of \$1.1 billion (\$50 million each) at current list prices. **HNA Group's Tianjin Airlines** is the first Chinese airline to order the E-Jets E2s, and it currently operates Asia's largest fleet of E-Jets with 50. The agreement covering 20 E195s and 20 E190-E2s was announced during Chinese President **Xi Jinping's** State visit to Brazil in July 2014. Eighteen more E190 E2 orders need to be approved by Chinese authorities. The first E195 will be delivered this year, and the first E190-E2 is scheduled for delivery in 2018.

Azul Linhas Aéreas Brasileiras S.A. signed a final agreement for 30 firm E195-E2 orders. The contract was announced as a Letter of Intent during the **Farnborough International Airshow** in July 2014. It included purchase rights another 20, raising the potential order to 50 E195-E2 jets. The firm contract was valued at \$3.2 billion (\$64 million each), at list prices, if the purchase rights are taken up. The first delivery is scheduled for the second quarter of 2020. Currently, the Brazilian airline operates the largest fleet of E195s in the world, with 82 E-Jets in service, and it has another six E195s on order. The E-Jets E2 backlog now stands at 242 firm orders, and 348 options and purchase rights. The first delivery of an E-Jets E2 (the E190-E2) is planned for the first semester of 2018. The larger E195-E2 is scheduled to enter service in 2019 and the smaller E175-E2 in 2020. The **Azul** and **Tianjin** orders will be recorded in **Embraer's** 2015 second-quarter backlog.

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Mitsubishi Aircraft informed the **Regional Airline Association** convention on May 12, that its first and second flight test MRJ regional jets (FTA-1, SN 10001, and FTA-2) are completely assembled and have their **Pratt & Whitney** PW1200G engines installed. FTA-3 is mostly complete, having had its wings joined to the fuselage and its landing gear attached, but it is without engines. FTA-4 is still resting on struts and is undergoing the wing-to-body join. The aft fuselage of FTA-5 has not yet been attached to the front. That aircraft is painted in launch customer **All Nippon's** color scheme. The Japanese airframer has a flight test center in Moses Lake, Washington, and it will open an engineering center in Seattle. **Mitsubishi** delayed the first flight of the MRJ to September or October of 2015, but it has committed to keep to its second quarter 2017 delivery schedule.

Order Changes and Cancellations

Airbus Reported No Cancellations in April, but there were several order changes. One A319 order was transferred from the “**Undisclosed**” category to **China Eastern Airlines**, raising its A319 total to 29, with 28 delivered. One A320ceo order was dropped from the **Governments, Executive & Private Jets** category, lowering its total to 18 with 17 delivered, and the “**Undisclosed**” A320ceo orders fell by 11 to 155. The number of “**Undisclosed**” A321ceo orders rose by 11 to 89. **AerCap** exchanged 11 of its 175 A320neo orders for the same number of A321neos. **Avianca Holdings** transferred its 17 A319neo and 12 A320neo orders to **Avianca**. Now the Colombian airline group has 19 A319neos and 110 A320neos on order.

Boeing Reported Nine Cancellations in April, when one un-named customer dropped nine 737 orders, as it apparently exchanged them for nine 737 MAXs. **American Airlines** switched one of its 787-8 orders for the larger 787-9 version in May.

The COPA Airline order for 61 737 MAX aircraft that was announced in April consisted of the revelation of 50 orders placed in February 2015, as well as five orders each announced in May and December 2013 and a final order placed in March 2015. All four sets of orders were originally attributed to “**undisclosed**” customers at the time.

Leasing & Finance

Air Lease Corporation (ALC) signed a long-term lease of a third new **Airbus** A321-200ceo to **Volaris**, the ultra-low-cost Mexican airline. The A321 will be fitted with Sharklets, powered by **IAE** V2533-A5 engines and will be delivered from **ALC's** order book in the spring of 2016. The airline has already leased one A321 from **ALC** and will receive its second soon. **ALC** long-term leased two new **Boeing** 787-9s to **Hainan Airlines**. The planes will come from the lessor's backlog with **Boeing** in the spring of 2016. **ALC** ordered 46 new **Boeing** 787-9s and 787-10s. **Wizz Air** signed its first lease agreement with **ALC** for one **Airbus** A320ceo. It will be handed over in July, and will be the airline's 63rd A320 aircraft. **Wizz Air** is the largest low-cost airline in Central and Eastern Europe, and currently operates 59 A320s which connect 112 destinations in 38 countries.

Aircastle reported first quarter 2015 total revenues of \$194.3 million, \$17.7 million or 10 percent more than the previous year. The improvement was driven by higher maintenance revenues of \$15 million. Adjusted earnings before income taxes, depreciation and amortization was \$190.2 million in the first

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quarter, up \$20.2 million or 12 percent from 2014, due in part from \$5.1 million higher gains from aircraft sales. Adjusted net income was \$50.5 million, up \$37.2 million year over year. The increase was due in part to lower non-cash aircraft impairment charges of \$18.3 million. **Aircastle** acquired six aircraft for \$254 million and it is currently committed to buy another 19 aircraft for \$515 million. The lessor bought aircraft that averaged less than two years of age and were already on long-term leases. The company completed the profitable sale of two aircraft leased to an Indian airline, and other flight equipment for a total of \$50.5 million.

FLY Leasing reported net income of \$17.3 million, compared to net income of \$3.6 million for the same period in 2014. They earned end-of-lease revenue of \$21.9 million and a charge of approximately \$4.0 million associated with termination of the **Aircraft Acquisition Facility**. End-of-lease revenue was \$3.7 million a year before. Total revenues increased 34 percent to \$122.5 million and include \$120.1 million of operating lease revenue and \$1.9 million in gains from the sale of three aircraft. Operating lease revenue increased \$30.5 million over 2014. Adjusted net income was \$26.6 million for the first quarter compared to \$9.8 million in the first quarter of 2014.

United Airlines plans to lease up to 25 used **Airbus A319s** from **AerCap**, to reduce its dependence on smaller, 50-seat jets. The first 11 A319s will arrive over the next two years, and **United** has the rights to add up to 14 more over the next five years. The leases are part of its plan to match bigger aircraft with markets of growing demand. The 120-seat A319s will replace 70-seat regional jets which, in turn, will replace less-efficient 50-seat regional jets flown by **United Express** contractors. **United** will retire 130 of these aircraft by the end of 2015, with more cuts to come after that. The airline said it could fly two A319s on a route that currently needs three 70-seat jets. It would then use the 70-seaters on routes on which it currently uses the 50-seat planes. **China Southern Airlines** will return the 25 A319s off lease to **AerCap**, starting in early 2016. They were delivered between May 2003 and December 2007. **United** will refurbish the A319s with new seats, overhead-bin extensions and Wi-Fi.

Avolon announced net income for the first quarter of \$49 million, up 36 percent from the first quarter of 2014, while adjusted net income was \$62 million up 34 percent from 2014. **Avolon** sold aircraft with a net book value of \$145 million for a \$14.6 million profit. The company delivered eight aircraft to five airlines based in five countries in the first quarter, and signed \$841 million of new sale and leaseback commitments, representing 19 aircraft.

Engines

CFM International successfully flew the LEAP-1B engine on April 29. It was fitted on **General Electric's** modified 747-400 flying testbed at the **GE Aviation Flight Test Operations** in Victorville, California. Flight testing is the next major step in a two-year program to certify the engine by the end of 2016. The first **Boeing 737 MAX** will be delivered in 2017. The engine performed well and completed multiple aero-mechanical test points at various altitudes during the five hour, 30 minute first flight, **CFM** said. The 737 MAX family will be exclusively powered by the LEAP-1B engine, which is part of the most extensive ground and flight test certification program in **CFM's** history, the manufacturer reported. The first LEAP-1B engine began ground testing on June 13, 2014, three days ahead of the schedule set when the program was launched in 2011. The flight test program will conduct a comprehensive series of tests that will gauge engine operability, stall margin, performance, emissions

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and acoustics. According to **CFM**, it also will further validate the advanced technologies incorporated in the engine, including the woven carbon fiber composite fan, the **Twin-Annular, Pre-Mixing Swirler (TAPS)** combustor, ceramic matrix composite shrouds in the high-pressure turbine and titanium aluminide blades in the low-pressure turbine. The 737 MAX has accumulated 2,724 orders from 57 customers worldwide to date.

The First A320neo equipped with **CFM International** LEAP-1A engines flew on May 19. The -251N aircraft (F-WNEW, SN 6419) flew for 4 hours and 25 minutes to the maximum altitude of 39,000 feet. They tested the engine speed variation from low to high, and checked systems behavior. **Klaus Roewe**, Head of the A320 Program, said, "Today marks yet another important step forward in the development of the A320neo. With the second NEO engine now taking to the skies, we are progressing well towards fulfilling our objective to offer our customers an engine choice for a product at the cutting edge of competitiveness." The first **Pratt & Whitney** Geared Turbofan powered A320neo flew on September 25, 2014, and it accumulated more than 400 flight hours and approximately 130 flights since then.

Airline News

Three Bids for TAP. The **Portuguese Government** received three bids for its struggling state-owned flag carrier, **TAP Air Portugal** from two Brazilian aviation tycoons and one Portuguese investor. This is the government's second attempt to privatize the heavily indebted airline since 2012. The Transport Secretary **Sergio Monteiro** would not disclose the names of the bidders, but the press did. One of the interested parties was Brazilian-American businessman **David Neeleman**, the founder of **JetBlue** and current CEO of **Azul Brazilian Airlines**. Brazilian-Colombian investor **German Efromovich** made a bid for **TAP** in 2012. Mr. **Efromovich** controls **Avianca Group** in Latin America through his holding company **Synergy**. He may have enlisted the U.S. fund **Greybull Capital** as a partner this time. **TAP** operates 77 airplanes on 2,500 weekly flights many to its former colonies, including Brazil. Due to **European Union** restriction on state aid, the government could no longer inject capital into **TAP**, which has debts over \$1 billion. The **EU** and **IMF** propped up Portugal during the recession and the sale of government properties was a condition of the bailout package. The government hopes that investors will rid the state of the airline debt, even if they do not pay much for the assets. Mr. **Monteiro** said, "This is the day of hope for **TAP** and its workers, hope that we will see it grow with capital and conditions to compete with European peers. The government will sell 61 percent of the airline but had to retain at least 34 percent for the next two years. The sale is opposed by the country's Socialist party. Its leader, **Antonio Costa**, said his party would take legal measures to prevent the state from losing control of **TAP**. Its pilots were on strike for 10 days in April and forced the government to guarantee that the buyers could not lay off workers en masse as long as the state remained a shareholder. The strike cost the airline \$40 million in lost revenue. The pilots

IATA Posts May 2015 Jet Fuel Prices. The association updates the world's average jet fuel prices each week. On May 1, the world's average price of fuel was \$1.860 per gallon, 12.8 percent higher than the April 2015 price of \$1.780. It was also 35.8 percent less than it was in May, 2014. The price of fuel is affected by location. It was only \$1.788 in the Middle East region and was \$1.986 per gallon in Latin America. In Asia, fuel cost \$1.842 per gallon. Fuel rose to \$1.869 in Europe and to \$1.863 in North America. Since last year, fuel costs in those regions dropped by 36.0 and 36.2 percent respectively. **IATA** estimated that the global airline industry's aggregate fuel bill will total \$71.6 billion in 2015. This will be a decrease of \$82.7 billion from 2014.

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demanding a stake in the airline, but the government refused to make concessions. State holding company **Parpublica** will evaluate the financial side of the offers, **TAP** will look at the technical details and make recommendations to the cabinet which will decide on whether to negotiate directly with bidders or reject their offers. The government told **TAP** it would have to reduce routes and cut staff if privatization fails.

Emirates Posted a 40 Percent Increase in Profit in the financial year ending March 31, 2015. The drop in fuel costs offset revenue lost during runway work at Dubai's airport. The flag carrier posted a profit of 4.56 billion dirhams (\$1.24 billion), up from 3.25 billion dirhams (\$885.5 million) a year earlier. CEO Sheikh **Ahmed bin Saeed al-Maktoum** said lower oil prices had saved the

airline around 2 billion dirhams during the financial year, while the 80 days of runway maintenance at its **Dubai International Airport** hub cost the airline 1.7 billion dirhams of lost revenue caused by the cancellation of flights. The strengthening of the dollar cost the airline 1.5 billion dirhams. The airline's annual revenue was 88.82 billion dirhams (\$24.2 billion), 6.18 billion (\$1.68 billion) higher than a year earlier, while costs rose by 4.55 billion dirhams (\$1.23 billion) over the same period to 82.93 billion dirhams (\$22.6 billion). Sheikh **al-Maktoum** said, "Looking at our year ahead, the currency situation and the security situation in many areas around the world will continue to be our biggest challenge. Our industry has always been competitive, putting pressure on our yield." **Emirates** paid a dividend of 2.6 billion dirhams to **Investment Corporation of Dubai**, the state holding company that owns the airline, up from the 1 billion dirham dividend the previous year.

International Airlines Group (IAG) earned an operating profit of €25 million in 2015, up from a loss of €175 million in the prior year. **British Airways** made a profit of €117 million, a vast improvement from the €5 million loss in 2014. **Iberia** still lost money in 2015, but saw the 2014 loss of €111 million reduced to €55 million in 2015. **Vueling** lost €29 million, down slightly from the 2014 loss of €30 million. For the group as a whole, passenger revenue increased 12.3 percent over the previous year. Passenger revenue per ASK (available seat kilometers) was down 0.8 percent due to lower yields, but at higher volume. The numbers of passengers carried increased by 9.1 percent in the period.

Virgin America will take delivery of its next 10 new A320neos from July until June 2016 and then it faces a three-year period with no scheduled new aircraft deliveries. It has 30 A320neos on order that will enter service from 2020 through 2022. The carrier still plans to increase its capacity by an average of 10 percent per year beyond 2015, mostly by adding planes. CEO **David Cush** said, "We're just kind of sniffing around the market to see what's available and when. We're not in active negotiations now." Mr. **Cush** indicated that the airline would require six or seven airplanes a year "over the next several years." New aircraft will have to be obtained from lessors, or **Virgin America** will need to find them its self and finance the purchase with debt. The airline said it was not interested in used planes, because "If you look at **Delta** and other carriers, they are built for managing complexity, and it shows up in their cost structure among other things. That's why we're focused on taking new aircraft, because we don't have to worry about that complexity," Mr. **Cush** said. In 2012, the airline switched 20 of its A320ceo deliveries to the A320neo model and this effectively delayed their deliveries from 2016 until 2020-22. Now the airline is profitable, having reported a first-quarter adjusted profit of \$10.5 million, and it wants to continue to grow.

Chorus Aviation, Canada, completed its acquisition of **519222 Ontario Limited**, the holding company that owns **Voyageur Airways** and related companies, for C\$80 million (\$63 million). **Chorus**, the

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parent of **Jazz Air**, paid C\$47.0 million and issued C\$8.0 million in Class B Voting Shares for **Voyageur**. Another C\$25 million in deferred cash payments will be paid in instalments over the next three years, **Chorus** said. **Voyageur** is headquartered in North Bay, Ontario, and was founded in 1968. It offers advanced engineering and maintenance capabilities as well as international and domestic contract flying operations. It flies 10 CRJ200s, five **DHC Dash 7s** and five Dash 8-300s. **Chorus Aviation** will use **Voyageur** to boost its existing flight network and increase its maintenance capabilities.

Bankruptcy of the Month

BQB Lineas Aereas, Uruguay, resumed operations on May 4. A week after folding on April 11, the airline was bought by **Linea Aereas Amazonas**, Bolivia. The airline still operates its own ATR 72-500s and **Amazonas'** CRJ200s using that airline's flight numbers. **BQB's** three ATR72s may eventually be replaced with CRJ200s from its new parent.

Technical

Jet Aviation Basel will install VVIP interiors in an ACJ A319 and an ACJ A330 for Riyadh-based **Alpha Star Aviation Services**. The aircraft will be delivered to the Basel Completions Center in the fourth quarter of 2015. Both aircraft interiors are designed by the **Basel Design Studio** and will receive **European Aviation Safety Agency (EASA) Supplemental Type Certificate (STC)** approval upon completion.



PACAVI Group and **GAMECO (Guangzhou Aircraft Maintenance Engineering, Co., Ltd.)** will expand their strategic partnership to conduct the serial production of A320 and A321 passenger to freighter conversions at the **GAMECO** facility in Guangzhou, China. **PACAVI** formally launched its A320/A321 Freighter LITE conversion program in September 2014 and they have firm orders for 42 A320 conversions from two unnamed customers. **PACAVI Group GAMECO** will also convert the prototype A321 Freighter LITE while, German MRO **HAITEC** started modification of the A320P2F prototype (SN 293) at its facility at **Frankfurt Hahn Airport** in January. **AeroTurbine, Inc.** will convert A320s into freighters at Goodyear, Arizona, for **PACAVI Group**. CEO **Dr. Stephan Hollmann** said, "Our joint project team will commence conversion of the A321 prototype no later than the fourth quarter of 2015. We want to have the conversion available for both the A320 and the A321 almost simultaneously, beginning in

Israel Aerospace Industries launched a **Boeing 737-700P2F (Passenger to Freighter)** conversion program through its maintenance and conversion arm, **Bedek Aviation Group**. **Alaska Airline** is the launch customer and has ordered three conversions and took an option for a fourth. **Bedek** expects certification for the program in mid-2016 and it should redeliver of the first converted aircraft at the end of that year. **Alaska** currently consists of one 737-400SF and four 737-400 combis on flights throughout rural Alaska as well as to the mainland United States. The earliest 737-700s are now approaching the end of their lease terms, and are valuable enough to convert, while not too expensive to buy or operate. With this, and competing P2F programs, they now have options. **Aeronautical Engineers (AEI)** has already announced plans to convert the larger 737-800 into freighters.

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2017, to hit the marketplace when demand is at a peak. The partners also agreed on joint marketing activities, including the opening of a marketing center in Guangzhou to target conversion customers in the region. The agreement also includes aftermarket support for regional A320 and A321 conversion customers.

Nordic Global Airlines (NGA), Finland, decided to cease operations on May 31, 2015. **NGA** operated three MD-11Fs on scheduled services from Helsinki to Europe, North America and East Asia, as well as ACMI and charter services. The cargo airline is associated with **Finnair** which said termination of the operations will have no material impact on **Finnair's** cargo business, or its financial position. **NGA** was founded in 2011 and focused on main-deck cargo freighter operations to four continents using a low-cost and thin-organization model. The overcapacity in the cargo market and depressed pricing have driven it out of business. **Finnair Cargo Oy** owns 40 percent of the company, and other shareholders are **Neff Capital Management**, **Daken Capital Partners** and the **Mutual Pension Insurance Company Ilmarinen**. Between 2011 and 2014, **Finnair** leased freighter capacity from **NGA** for its mainly-Asian cargo traffic. **Finnair's** belly cargo capacity will increase significantly with the coming of the new A350 aircraft later this year. The flag carrier decided to focus on carrying cargo in the holds of passenger planes and quit using all-cargo freighters at the end of 2014. **NGA** was unable to continue after losing the **Finnair** revenues. The airline acquired two MD-11Fs (SN 48512 & 48513) from **Finnair** in August and September 2011 and the third (SN 48546) from **EVA** in November 2012.

Aeronautical Engineers (AEI) has delivered the third 737-400SF 11 pallet position freighter to **Sideral Air Cargo**, Brazil. The aircraft (SN 25377) was built for **ILFC** in 1995 as a high gross weight 737-4Q8 and it was converted and painted at **Commercial Jet's** Dothan, Alabama facility. **Sideral** has another **AEI** 737-400SF on order for delivery in 2016.

Military Market

Antonov Flew the First An-178 Transport just three weeks after it was rolled out at Kiev. The twinjet (UR-EXP) flew for one hour with two test pilots and a flight test engineer at the controls. The company stated, "The crew reported on a successful flight task realization." The An-178 is a civilian and military cargo transport developed from the An-148 regional airliner. It has a rear loading ramp that is capable of carrying up to 18 tons of cargo or 99 troops in its pressurized cargo hold. **Antonov** won a launch order from **Silkway**

Israel Aerospace Industries' Bedek Aviation Group launched a dedicated line to convert **Boeing** 767s into the company's Multi-Mission Tanker Transport (MMTT) configuration. The line will receive used 767-300ERs and incorporate a new glass cockpit, install new **GE** CF6-80C2 engines, under-wing hose-and-drogue refuelling pods and a boom, if required by the customer. The MMTT will be able to transport 200 soldiers and 60 tons of cargo. The aircraft will also be able to perform all cargo or all passenger transport duties, according to the company. The Israeli defence ministry said the 767 MMTT will be priced at 15-20 percent lower than any other alternative. **IAI** is offering the 767 MMTT to South Korea, which wants to acquire four tankers for its air force. They have wanted to deploy tanker capability since 1993, but the plans have been repeatedly shelved due to budget constraints and shifting priorities. South Korea should make a decision in the coming months, the Israeli ministry said. The **Korean Air Force** is also considering the **Airbus** A330-200 multi-role tanker transport and **Boeing** KC-46. **IAI** has already delivered one converted 767 tanker to Colombia. The Brazilian government has finally allocated the needed funds to purchase of three 767-300s and convert them into MMTT tankers.

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Airlines, Azerbaijan, as well as a protocol of intent from **Beijing A-Star Airspace and Technology**, China. The Chinese company intends to purchase two An-178s, and wants to build the aircraft in China, the airframer said. The An-178 is designed to replace aged transports including the An-12, An-26 and An-32. **Antonov** estimates a need for 200 aircraft in the new type's segment by 2032. The An-178 can cruise at 36,000 feet (13,000 meters) at 500 miles per hour (800 kmh). The An-178 is much smaller than China's heavy **Xian Y-20** cargo plane, and offers lower cost and smaller logistical footprint so it can fly tactical and relief missions to underdeveloped regions. The cargo jet is 33 percent faster than the contemporary quad-turboprop **Shaanxi Y-9** (An-12 clone). **Beijing A-Star** wants to be the first privately-owned defense contractor to compete with state-owned **AVIC** and **NORINCO** for **PLA** military procurement. **Antonov** provided consulting and engineering support to Chinese cargo plane manufacturers which built the Y-20 and Y-9 in the past and it seems willing to take risks to sell the An-178 to foreign buyers like China. **Beijing A-Star** sees the An-178 as a more fuel-efficient, longer-ranged and faster aerial platform for Chinese special-use aircraft that currently conduct electronic warfare, aerial command, airborne warning and control, and psychological warfare.

AIRCRAFT DELIVERIES & SALES

Airbus

Airbus A318 & A319. Airbus delivered the 80th A318 they have built to **Business Aviation Asia** in April. The -112(CJ) Elite (VP-CYB, SN 5545) was completed in November 2013 and flown to **Beijing Capital Airport**, China, on April 11. **China Eastern Airlines** accepted **Tianjin FAL**-built -115/W (SN 6453), and **American Airlines** obtained its fifth of seven ordered -115/Ws (SN 6552). **Airbus'** first A319neo (-171N, SN 6464) will be fitted with **Pratt & Whitney PW1124G** engines.

Airbus A320. Airbus delivered 29 A320s during April, including four -214/Ws (SN 6347, 6467, 6494 & 6529) to **Qatar Airways** on April 22, a new record. The A320s were leased to **Qatar's** subsidiary **Al Maha Airways**, Saudi Arabia, and they had been completed between October 2014 and March 2015, and stored at Toulouse. The new carrier will start flying by the end of this year, almost two years behind schedule. The airline is awaiting permits from the **Saudi Arabian Government**. **EasyJet** took delivery of five -214/Ws (SN 6546, 6562, 6565, 6568 & 6572) and now has 86 in its fleet and another 57 on order. **Vueling Airlines** took delivery of its sixth -232/W (SN 6571), and leased -232/W (SN 6557) from **BOC Aviation** and -232/W (SN 6535) from **AWAS**. **Wizz Air Hungary** accepted two -232/Ws (SN 6544 & 6559), and **Lufthansa** received its 76th and 77th -214s/W (SN 6549 & 6577). In China, **ICBC** leased one

Ultra-Low-Cost Carrier VivaAerobus took delivery of its first new A320-232/Ws (SN 6574) in May. The A320 is the first to be delivered from an order for 12 A320neos and 40 A320neos, placed in 2013. This was the largest single aircraft order by a Mexican customer. **VivaAerobus** already operates six leased A320s and will retire its fleet of 19 active 737-300s by early 2016. All of the airline's A320neos are powered by **IAE V2500** engines. Its A320neos will be powered by **Pratt and Whitney** geared-turboprop engines. The aircraft will be deployed on the airline's domestic network and international routes to the United States. **Avolon** bought the new A320 from **VivaAerobus** as part of a four aircraft purchase and lease back deal with the airline.

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Tianjin FAL-built -232/W (SN 6421) to **Sichuan Airlines**, and one -214/W (SN 6564) to **Shenzhen Airlines**. **SMBC Aviation Capital** leased -214/W (SN 6542) to **Juneyao Airlines**, and **China Aircraft Leasing Co. (CALC)** leased -232/W (SN 6547) to **Qingdao Airlines**. **Tianjin FAL** delivered -232/W (SN 6431) to **China Eastern Airlines**, and -214/W (SN 6442) to **Hong Kong Airlines**. **Nepal Airways'** second new -232/W (SN 6555) carried relief supplies during its ferry flight from Toulouse to Kathmandu on April 30. **Air New Zealand** acquired its 14th -232/W (SN 6533), and it has two more on order. **Air Arabia** accepted -214/W (SN 6553), and **Etihad Airways** received -232/W (SN 6527). **Air Lease Corp.** leased -214/W (SN 6550) to **Monarch Airways**. **Spirit Airlines** received -232/W (SN 6566), and **Avianca Brasil** leased -214/W (SN 6561) from **Synergy Aerospace**.

Aergo Capital purchased A320-233 (SN 1626) from **Avion Express**, Vilnius, Lithuania, and leased it back. **Avion Express** operates a fleet of 10 A320s and two A319s. It acquired two -232s (SN 2108 & 2275) from **CIT Aerospace** in April.

Avolon delivered the sixth new A320-216/W (SN 6597) to **Pegasus Airlines** in May. The airplane was originally allocated to **AirAsia**, and was picked up by **Avolon** in April. The lessor has three more A320ceos on order.

Airbus A321. **Airbus** delivered 18 A321s in April, including six -231/Ws (SN 6520, 6523, 6532, 6537, 6543 & 6569) to **American/US Airways** which have a combined fleet of 154 A321s. **Philippine Airlines** received two -231/Ws (SN 6539 & 6573). **Thomas Cook** leased one -211/W (SN 6548) from **Air Lease Corp. (ALC)**, and one -211/W (SN 6526) from **ICBC**. **Volaris** leased its first A321, -231/W (SN 6558) from **Air Lease Corp.** **ALC** also leased one -231/W (SN 6534) to **Etihad Airways**, and the airline received one -231/W (SN 6554) directly from **Airbus**. **Turkish Airlines (THY)** accepted -231/W (SN 6563) and **JetBlue Airways** acquired -231/W (SN 6560). **GE Capital Aviation Services (GECAS)** leased a new -213/W (SN 6567) to **Air China** from the lessor's existing order book with **Airbus**. **BOC Aviation** leased -211/W (SN 6545) to **EVA Airways**, and **China Southern Airlines** purchased -231 (SN 6556).

Airbus delivered the 100th aircraft, an A321, to China's largest all **Airbus** operator, **Sichuan Airlines**. The A321-231/W (SN 6581) is equipped with Sharklet fuel saving wing tip devices and powered by **IAE V2500** engines. It features a comfortable two class cabin, seating 194

Airbus A350. **TAM Airlines'** first A350-900 is on the **Final Assembly Line (FAL)** at Toulouse, France. The wings, horizontal and vertical tail planes, the main landing gear and the tail cone have all been joined to the fuselage. **TAM** will be the first airline in the Americas to fly the A350-900 and the fourth operator in the world overall when it takes delivery by the end of this year. The airline has ordered 27 A350-900s. Final assembly of **Singapore Airlines'** first A350-900 has begun with the joining of the fuselage sections. The aircraft is the first of 70 A350-900s ordered by the airline and it is scheduled for delivery in the first quarter of 2016. The A350 XWBs will replace the A330s and 777s in **Singapore's** fleet and they will be operated on the carrier's medium and long-haul routes. **Airbus** said 70 percent of the A350 XWB is made of advanced materials, including 53 percent composites, and the aircraft incorporates the latest innovations, providing extra efficiency for airlines. In particular, the wings have been designed to adapt during the flight, morphing while airborne, changing their shape for maximum aerodynamic efficiency throughout the various phases of flight. This helps to reduce fuel burn and CO2 emissions by 25 percent compared to previous generation competing aircraft.

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passengers (8 business and 186 in economy). **Sichuan Airlines'** fleet comprises 24 A319s, 43 A320s, 26 A321s and seven A330 Family aircraft.

Beijing Capital Airlines will take delivery of its first A321-200/W (SN 6818) in the next few months, joining 26 A319-100s and 28 A320-200s. The jets fly to more than 50 destinations located throughout China as well as Thailand, Okinawa, Korea and Japan.

Airbus A330. Airbus delivered one -200, one -200F and seven -300s during April, including the sixth -243F (SN 1550) and three -303s (SN 1616, 1620 & 1622) to **Turkish Airlines (THY)**. The **THY** -243F was completed in June 2014 and was originally allocated to **Avianca Brasil**. **Cathay Pacific** accepted its last two -343s (SN 1618 & 1621) on order and has now taken delivery of 49 A330s. **Aerolineas Argentinas** received its second of four new -202s (SN 1623). **China Southern Airlines** acquired -323 (SN 1625), and **AirAsia X** obtained its 19th of 31 -343s on order (SN 1612).

Monarch Airlines has ended widebody and charter operations when it returned -243 (G-EOMA, SN 265) to **Guggenheim Partners** after a flight from Gatwick to Birmingham on April 30. The carrier has transitioned to a fully scheduled operation and no longer offers charter flights which were the airline's mainstay since its establishment back in 1968. Last year, **Monarch** announced it would change into a "premium budget-carrier" and would end all long-haul and charter flights. The airline now operates eight A320-200s and 24 A321-200s.

Kuwait Airways will deploy its first A330-243 (9K-APA, SN 1626), into revenue service on May 21. The airline will lease five new A330s and seven A320-200s from **Airbus**. The A330s will fly from Kuwait City to Rome, Paris, London, Geneva, Frankfurt and Chennai. The new **Airbuses** will be used until **Kuwait** takes delivery 10 new A350-900s, 15 A320neos and 10 777-300ERs.

Alitalia will lease two A330-200s from **Etihad Airways** for five years starting in June. The twinjets will serve far Eastern Asian cities of Beijing, Seoul, and Shanghai after a 20-year absence from some of those routes. **Alitalia** CEO **Silvano Cassano** said, "Alitalia continues to focus on the development of intercontinental routes, in

Malaysia Airlines (MAS) is discussing the disposal of its six A380-841s (SN 078, 081, 084, 089, 094 & 114) with several parties. The international media reported the carrier would either sell off or lease out its A380s as part of parent **Khazanah Nasional Bhd's** restructuring plans for the airline. The Malaysian flag carrier said it would ground two A380s, used on its **Kuala Lumpur Int'l-Paris CDG** route, in early June and will replace them with 777-200ERs. One possible customer, **Turkish Airlines (THY)** said it had not made a decision whether to buy or lease A380s and it would not operate the type in 2015. **THY** said it would extend the wet-lease of one **MAS** A330-223F (SN 1164). **Khazanah** reported it would dispose of **MASKargo's** four A330-223Fs, and its two 747-4H6Fs. **Malaysian** will also sell or lease four 777-200ERs. The airline would be left with a long-haul fleet of fifteen A330-300s, and nine 777-200ERs, as well as 57 737-800s. The A380s were delivered between May 2012 and March 2013, and each of them contains eight first class suites, 66 lie-flat business class seats and 420 economy seats. The sale of assets will be used to ameliorate the airline's debts of \$1.5 billion. The Sabah and Sarawak state governments have offered to jointly purchase **MAS's** regional arm, **MASwings**, and each government would own 50 percent. **MASwings** services 25 destinations across remote communities in mainland Malaysia and Borneo, using a fleet of 10 ATR 72-500s, four new ATR 72-600s and six modern **Viking** DHC 6-400 Twin Otters. **Malaysian** will make an official announcement about its plans later in the year.

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particular to the Far East, the area of the world with the highest growth rates and where **Alitalia** intends to further invest.

Evelop Airlines, Spain, will lease A330-343E (SN 1691) from **Intrepid Aviation Partners** for 10 years. The A330 will arrive late this year. The airline may also lease an A330-200 from **Air Lease Corporation**. The airline's board voted to order an A350-900 in 2019. It will replace A330-343 (SN 833) that is subleased from **Oberst** (Portugal), and owned by **Macquarie AirFinance**. It plans to sublease -223 (SN 802) from **Oberst/CIT Aerospace** this summer.

Airbus A380. **Lufthansa** took delivery of its 14th and last -841 (SN 177), and **Emirates** received its 60th -861 (SN 174) in April. **Etihad Airways** accepted its second -861 (SN 170) on the tenth anniversary of the airliner's first flight in 2005. **Airbus** has handed over seven super jumbos in the first four months of 2015, and the 159th A380 since the double-decker entered service in 2007. This means that more than half of the 317 firmly ordered A380s have been delivered. **Qatar Airways'** Chief Executive Officer **Akbar Al Baker** said he would not order more A380s unless **Airbus** launches the A380neo which could offer 10 to 15 percent fuel savings. **Airbus** is still undecided whether to update the A380 with new engines to boost sales, which have stalled for several years. The only leasing company to order the plane, **Amedeo** said it has two potential customers this year.

Boeing

Boeing 737 NG. **Boeing** delivered 43 737s in April, including two 737-700s to Chinese airlines. **Ruili Airlines** accepted its second of two -7ME/Ws (SN 60461), and **Shanghai Airlines** received its 13th and last -76D/W (SN 39315). **China Eastern Airlines** acquired three -8P9/Ws (SN 39742, 41472 & 41504). The first -8P9/W was transferred to **China United Airlines**. **Lion Air** took delivery of one -8GP/W (SN 38309) and one -9GPER/W (SN 39837) and leased the -800 to **Batik Air**, and the -900ER to **Thai Lion Air**. **Ryanair** bought two more -8AS/Ws (SN 44697 & 44698), and **TUI Travel** leased two -8K5/Ws (SN 41663 & 41664) to **TUIfly**. **Air Lease Corporation (ALC)** leased -8K2/W (SN 41330) to **Transavia**, and leased -8SH/W (SN 41331) to **Aerolineas Argentinas**. **SMBC Aviation Capital** leased two -852/Ws (SN 39957 & 39958) to **Aeromexico**. Two -8H4/Ws (SN 36649 & 36652) were delivered to **Southwest Airlines**, for a fleet total of 89, and **American Airlines** took two -823/Ws (SN 31215 & 33241) for a total of 253. **Delta Air Lines** acquired two -932ER/Ws (SN 31949 & 31950) for a total of 39, and **United Airlines** received two -924ER/Ws (SN 42199 & 42204), and it now has 23 more on order. Seven lessors each took delivery of one -800 for lease. **AerCap** leased -8GS/W (SN 41608) to **Sunwing Airlines**, Canada, and **Aviation Capital Group** leased -8HX/W (SN 40553) to **Kenya Airways**. **Avia Capital Leasing** leased -8LJ/W (SN 41207) to **Aeroflot**, **Avolon** leased a sixth -8MA/W (SN 43666) to **Pobeda**, and **Sberbank Leasing** leased -8MC/W (SN 44435) to **Transaero** in Russia. The **Transaero** -800 was fitted with a dome-shaped radome which covers a Ku-band satellite antenna system that enables broadband passenger connectivity all over the world. The plane is the first of 12 that **Sberbank** ordered in

Turkish Airlines celebrated the delivery of the airline's 125th airplane purchased from **Boeing** in a 737-900ER (SN 42013). It is one of 12 airplanes the Turkish flag-carrier will receive from **Boeing** this year. **Turkish Airlines** purchased its first of two 727-200s in 1974. Since then, Turkish has grown to become one of the world's leading carriers and currently operates a mix of 777-300ERs and 737 Next-Generation airplanes.

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March 2013. **Hainan Airlines** leased -86N/W (SN 43403) from **GECAS**, and -84P/W (SN 41570) from **CIT Leasing Corporation**. **Boeing** delivered one -89L/W (SN 41104) to **Air China**, one -85N/W (SN 41623) to **Shandong Airlines**, and one -87L/W (SN 40824) to **Shenzhen Airlines**, in China. In the Americas, the **United States Navy** purchased its 25th -8FV P-8A Poseidon (SN 44144), and **WestJet** accepted -8CT/W (SN 60131). **COPA Airlines** bought -8V3/W (SN 40787), and **Alaska Airlines** acquired -990ER/W (SN 60580). **GOL Transportes Aereos** took delivery of -8EH/W (SN 40738), and sold it to **GE Capital Aviation Services (GECAS)** for lease back, as part of a four-aircraft deal. The three remaining planes are scheduled for delivery later in 2015, in 2016 and in 2017. **GECAS** also purchased new -8KN/W (SN 40276) from **flydubai** after it was delivered. It was leased back and it is the 46th 737 in **flydubai's** fleet. The **Republic of Iraq** leased -81Z/W (SN 40082) to **Iraqi Airways**, and **Turkish Airlines** accepted its 13th of 15 -9F2ER/Ws (SN 42012). **Air Berlin** received -86J/W (SN 36875), and **SilkAir** acquired -8SA/W (SN 44226).

Boeing 747. **Lufthansa German Airlines** accepted its 19th and last 747-830 Intercontinental (SN 37845) in April. **Air China** received its fifth -89L Intercontinental (SN 41847), and has one more on order. At the **European Business Aviation Convention & Exhibition (EBACE)** event, **Boeing Business Jets** announced the first BBJ 747-8 (SN 42096) entered service earlier this year with the **Qatar Airways Amiri Flight** in Doha. To date, **Boeing** has delivered 57 747-8 Freighters and 32 passenger 747-8Is.

Boeing 767. **Federal Express** took delivery of its 15th -3S2F (SN 42714) in April. The cargo airline has 38 more on order.

Boeing 777. **Boeing** delivered nine 777-300ERs in April, including two -3F2ERs (SN 44121 & 44122) to **Turkish Airlines (THY)**. **Air Lease Corp. (ALC)** long-term leased -3B5ER (SN 42120) to **Korean Air**. **Emirates** accepted -31HER (SN 41329) and **KLM** received -306ER (SN 35906). **Cathay Pacific Airways** celebrated the delivery of its 50th 777-367ER (SN 60725) on April 30, and it has three more on order this year. **Cathay** now has 67 777s in operation, including 12 777-300s and five 777-200s. **Boeing** delivered one -3M0ER (SN 41690) to **Aeroflot - Russian Airlines**, one -328ER (SN 37435) to **Air France** and one -381ER (SN 60137) to **All Nippon Airways**.

Boeing 787. **Boeing** delivered 11 787s in April, including two 787-8s (SN 40622 & 40623) to **American Airlines**. The airline started its first 787-8 services between its Dallas/Fort Worth and Chicago O'Hare hubs. The 787 (SN 40619) is one of five that **American** has received since January. It expects to have 13 787-8s in its fleet by the end of the year. **AerCap** took delivery of -8 (SN 38757) to **Thai Airways International**. **Kenya Airways** accepted -8 (SN 36044), and sold it to **AWAS** for lease back. The flag carrier will take delivery of two more -8s, scheduled for July and August. They will both be sold to **AWAS**. **Royal Air Maroc** received -8 (SN 43818), and **Norwegian Long Haul** obtained -8 (SN 36526). **Qatar Airways** bought -8 (SN 38339), and **Xiamen Airlines** acquired -8 (SN 41541). Three 787-9s were delivered, including the third of 44 -9s (SN 34527) to **All Nippon Airways**. **Scoot**,

LAN Perú will add three 787 Dreamliners in January 2016, as part of its fleet renewal program. The twinjets will be deployed on routes to the United States, Spain and Mexico. The 787s will gradually replace **LAN Perú's** fleet of eight 767-300ERs. The airline's parent **LATAM Group** has twenty-two 787-8s and four 787-9s on order, and it has taken delivery of 10 -8s and leased two -9s.

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Singapore, accepted its third -9 (SN 37114), and it has eight more on order. **Kalair** bought the first VIP 787-9 (SN 37109). It was flown to Basel for cabin installation by **Jet Aviation**. The company also operates a 21 year-old 767-3P6ER (SN 27254) in VIP configuration. It is registered as a U.S. corporation, but **Kalair** is based in Riyadh, Saudi Arabia.

Regional Jet

Bombardier. **American Airlines Group** received two CRJ900 NextGen aircraft (SN 15361 & 15362) in April. The aircraft will be operated by the group's wholly-owned subsidiary, **PSA Airlines**, under the **American Eagle** brand. **American** now has 26 of its 54 ordered CRJ900 NGs in its fleet.

Embraer. **Embraer** delivered the third and fourth of 60 EMBRAER 170-200 LRs (E175) (SN 17000467 & 17000473) to **American Airlines** in April. **American** selected **Compass Airlines**, a wholly-owned subsidiary of **Trans States Holdings**, to operate the first 20 E175s under the **American Eagle** brand. **United Airlines** bought five E175s (17000465, 17000469, 17000470, 17000471 & 17000472), and leased them to **Mesa Airlines** and **Skywest Airlines** for operation for **United Express**.

Sukhoi Superjet. **Aeroflot** received its 28th Superjet 100-95B (SN 95089) in April. The airline returned its first 10 early-model SSJ100s to the manufacturer and it operates 18 of the newer full configuration SSJ100s. **Interjet** accepted its 14th new Superjet 100-95B (SN 95054) on April 22, and its 15th (SN 95066) on May 20. The aircraft were rolled out from **SuperJet International's** facility in Venice, Italy, and took off from the **Marco Polo Airport** for their ferry flights to Mexico, stopping in Keflavik, Iceland, and Bangor, Maine. The low-cost carrier ordered 30 of the 93-seat SSJ100s and will receive six more this year.

WORLDWIDE AVIATION MARKETING AND MANAGEMENT SERVICE

Turboprop Aircraft

ATR. **LIAT**, Antigua and Barbuda, received its fifth ATR 42-600 (SN 1018) in April to **Azul Linhas Aéreas Brasileiras**. **WingDAE Capital** leased one new ATR 72-600 (SN 1241) to **Abadi Airlines**, Indonesia, received two -600s (SN 1244 & 1247), and **Garuda Indonesia** leased -600 (SN 1243) from the Danish lessor, **Nordic Aviation Capital (NAC)**. **UNI Airways**, Taiwan, accepted -600 (SN 1240), and **Air France's** regional subsidiary **HOP!** leased the first of five -600s (SN 1237) from **NAC**. The remaining aircraft are expected to be delivered in May, June, September, and October 2015, and they will replace older ATR 72-500s.

KalStar, Indonesia, will shortly add its first ATR 42-500 to its fleet of three ATR 42-300s, two ATR 72-500s, and two ATR 72-600s. The former **FlyMe** -500 (SN 518) is currently undergoing pre-delivery maintenance checks and repainting.

Bombardier. No Dash 8Q-400s were delivered in April. **Spicejet** has decided to retain its fleet of 15 late-model Dash 8Q-400NGs the local press reported. The financially troubled Indian low-cost carrier successfully renegotiated an MRO contract with **Bombardier**. The airline's boss, **Ajay Singh** had previously said the -400Qs would be returned to lessors, due to their poor financial performance. **SpiceJet** had returned many of its 737NGs to lessors in the last year.

Antiques and Other Junque

A340 Fleets. **China Eastern Airlines** retired its last A340-600 (SN 586) on May 3, after the A340 completed its last revenue flight from **Tokyo Narita** to **Shanghai Pudong Airport**. This was also the last A340 service in China as a whole. The number of commercial operators of the A340-500 and -600 is shrinking fast. They are still in service with **AZAL Azerbaijan Airlines**, **Etihad Airways**, **Global Jet Luxembourg**, **Iberia**, **Lufthansa**, **Qatar Airways**, **South African** and **Virgin Atlantic**.

Sri Lankan Airlines will retire its fleet of four early-model A340-300s on November 1, 2015 after its last A340 commercial flight arrives from Doha. The flag carrier will replace its A340-300s with seven A330-300s, and the last three A330s arrive in late 2015 and early 2016.

Mahan Air, Iran, recently purchased seven A340-600s (SN 371, 376, 383, 391, 416, 449 & 615) from **HiFly Malta** and **Virgin Atlantic**. Iran's transport minister said the country's airlines had bought 15 second-hand civilian aircraft in 2015, including nine airplanes that were obtained in May. Another two airplanes were bought and will be stripped for parts. A long-standing ban on the sales of aircraft parts was eased under an interim nuclear deal between Iran and world powers in late 2013, but the U.S. sanctions regime still restricts sales of aircraft. Minister **Akhoondi** said the ongoing nuclear negotiations, and the potential lifting of sanctions if a deal is reached next month, might allow Iran to negotiate directly with manufacturers to purchase high-quality aircraft.

Skywest Airlines retired its last of 38 EMB-120 Brasilas on May 5. The airline has transitioned to an all-jet operation. The Brasilas were operated for **United Express** from Los Angeles to nearby cities. **Skywest** blamed increased costs associated with new FAR117 flight and duty-time rules which require first officers to be in possession of an **Airline Transport Pilot (ATP)** certificate. The airline operates seven **Bombardier** CRJ100s, 159 CRJ200s, 98 CRJ700s, 36 CRJ900s and 30 **Embraer** E170s.

Accidents and Safety

From Aviation Safety Foundation

Yemen Air Force Ilyushin Il-76TD (7O-ADG, SN 1033415497) was destroyed on the ground at **Sana'a International Airport**, Yemen, on May 4. The **Royal Saudi Air Force** bombed the airport as part of its **Restoring Hope** operation that targeted Houthi rebels and hit a **Felix** CRJ700 and the Il-76. Both planes were burned out.

Airbus A400M Atlas (EC-403, SN 023) was destroyed in a crash near **Sevilla Airport**, Spain, during a test flight on May 9. The Atlas crashed three minutes after takeoff, and two of the six crew members survived the accident. The pilot, co-pilot, a mechanic and three engineers were conducting a test flight prior to intended delivery to the **Turkish Air Force**. The crew radioed that they were returning due to **problems** and then the aircraft struck power lines three miles from the runway, crash landed in a field, and burned.

Joy Air Xian MA60 (B-3476, SN 0805) was damaged beyond repair in a landing accident at **Fuzhou Airport**, China, on May 10. Upon landing, the airplane ran off the side of the runway. The aircraft's

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fuselage and left wing twisted and the engines struck the ground. Five of the 45 passengers sustained minor injuries. The airplane was leased from **AVIC International Leasing** in 2011, and was powered by **Pratt & Whitney** PW100-127J engines. This was the latest in a series of accidents involving the troubled turboprop. The nose undercarriage of a **Joy Air** MA60 collapsed during landing at Zhengshou, China, on February 4, 2014. That aircraft was repaired and returned to service. Previously, there have been another 12 MA60 accidents since 2009. These caused the deaths of 21 passengers and four crew members, and the total loss of four aircraft. Six of the remaining accidents were listed as major. The fatalities were caused when a **Merpati Airlines** MA60 crashed into the sea while approaching **Karimana Airport**, Indonesia, in stormy conditions. Two other **Merpati** MA60s and one operated by **Air Zimbabwe**, were total losses. There are 66 MA60s in service and 28 aircraft are in storage. There are 75 firm orders for the type.

AVMARK CAPABILITIES

Since its establishment in 1962, AVMARK has been providing consulting management services to all sectors of the aviation community. From offices in Washington DC and Singapore, together with associates based in United States (North America), Ecuador (South America), Spain (Europe), Congo (Africa), New Delhi (India and Asian Market), we serve a worldwide clientele. Our staff is comprised of professionals with extensive, successful careers in technical, commercial and managerial areas of aviation enterprises; combining real world operational experience with sophisticated analytical tools to provide our clients with the most effective solutions to their problems.

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AVMARK's Historic Jet and Turboprop Values; summary of the then current fair market values as published in the AVMARK Newsletter for all jets and turboprops in service.

AVMARK's Small Transport Aircraft Catalogue (STA); designed as an easy to use reference guide to compare the operating and cost parameters of 35 regional jet and turboprop aircraft.

Sample of Avmark Publications

SMALL TRANSPORT AIRCRAFT CATALOG

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.

SMALL TRANSPORT AIRCRAFT
A Catalog of New and Used Commuter / Regional Aircraft
2004
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MARKET OVERVIEW

Most dynamic and fastest growing segment in the world using old generation propeller aircraft to 90 million passengers using state of the art

Airline Association (RAA):

Aviation:

DOT:

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Saab 340	140
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Shorls 330	148
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ATR 42-300

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

Specifications	
Accommodations	
Passengers*	46
Pilot	2
Cabin Attendants	1
Powerplant	
2 Pratt & Whitney PWC120 Turboprops	1,800 SHP / 1,342 kW
Hamilton Propellers	4 blades
External Dimensions	
Length	74 ft 8 in
Wingspan	60 ft 7 in
Height	24 ft 11 in
Weight	
Empty	48,815 lb
Max Ramp	56,155 lb
Max Takeoff	53,510 lb
Max Landing	22,875 lb
Max Ramp	10,325 lb
Max Takeoff	9,920 lb
Max Landing	40.53 lb / sq ft
Max Ramp	10.23 lb / cu ft

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

Optional Equipment: KLN 900 GPS/W, FMS, Area Navigation (RNAV), Microwave Landing System, VLF/Omega Long Range Navigation System, Dual Honeywell AZ-800 Digital Air Data Computers, PA 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 Attitude and Heading Reference Systems (AHRS), Dual Autopilots, Dual Computers (ADC), 1 CFZ 600 Automatic Flight Director, Dual King Gold Crown VHF Nav, Radios, DME, Radio Altimeter, Honeywell P-800 Weather Radar.

Price List

Years Built	Base (\$ mil)
85-99	2.0

ATR 42-300 85-99 2.0

Direct Operating Costs (\$ per block hour)

Utilization (Block Hours / Year)	
Average Stage Length (nm)	100 300
Flying Operations	
Flight Crew, Salaries / Expenses	\$198 \$188
Fuel, Oil, Taxes	\$173 \$162
Other	\$3 \$3
Aircraft Costs	
Insurance	\$3 \$3
Maintenance	\$478 \$415
Depreciation	\$62 \$62
Rentals	\$318 \$318
Total Direct Operating Costs	\$906 \$833
Cost per Available Seat Mile - \$	12.33 8.65
Cost per Airplane Mile	\$5.67 \$4.44
Cost per Seat Block Hour	\$16.67 \$15.1

Note: Data from DOT Airline Reports.

ATR 42-300

PAYLOAD VS. RANGE

Range (nm)

Distance (nm)

Typical Cabin Configuration

46 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 externally accessed forward and aft baggage compartment, and in a closet.

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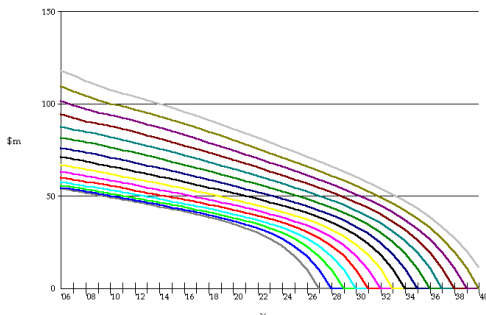
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CAVAS Graph



Profit & Loss Report		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	49
Freight & Mail	8,879,176	8,868,733	8,858,261	8,847,758	8,837,226	8
Other Revenue	986,575	985,415	984,251	983,084	981,914	1
TOTAL OPERATING REVENUE	59,194,505	59,124,887	59,055,070	58,985,055	58,914,841	58
VARIABLE EXPENSES						
Fuel	6,918,975	6,917,340	6,915,470	6,913,177	6,910,945	6
Landing Fees	3,021,823					
Enroute Charges	392,440					
Pax Commissions	7,399,313					
Freight Commissions	1,331,876					
Food & Supplies	3,993,194					
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		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	1
Other Overhead	0	0	0	0	0	
TOTAL FIXED COST	522,892	697,747	871,835	1,045,156	1,217,711	1
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	1,680,303	1,716,455	1
TOTAL COST	33,037,722	33,795,036	34,548,781	35,298,359	36,045,559	36
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	22
AIRCRAFT LIFE ADJ. CASH FLOW		25,841,782	25,329,851	24,506,290	23,686,100	22,869,282

Select Aircraft Type

Available Aircraft

- Airbus A300B4-600R
- Airbus A300B4-600RF
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- Airbus A319-100
- Airbus A320-100
- 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
- BAe 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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Aircraft: Airbus A340-300 - Widebody 4 Engine Passenger

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	63.14	66.80	71.07	75.94	81.43	87.52	94.23	101.54	109.47	118.00
2007	52.85	53.49	54.70	56.56	58.99	62.01	65.62	69.95	74.86	80.37	85.52	92.18	99.12	106.73	115.25
2008	51.68	52.36	53.61	55.43	57.85	60.84	64.42	68.69	73.65	79.18	84.76	90.48	96.97	104.20	112.39
2009	50.49	51.19	52.46	54.29	56.70	59.67	63.24	67.50	72.44	77.95	83.52	89.34	95.81	103.44	111.80
2010	49.28	50.00	51.28	53.11	55.51	58.47	62.02	66.26	71.18	76.68	82.36	88.21	94.72	102.64	111.20
2011	48.05	48.79	50.07	51.90	54.29	57.24	60.78	64.99	69.86	75.36	80.94	86.70	93.41	101.62	110.30
2012	46.80	47.55	48.83	50.65	53.03	55.97	59.50	63.70	68.55	73.94	79.44	85.14	91.84	99.95	108.70
2013	45.53	46.28	47.55	49.36	51.73	54.66	58.17	62.36	67.13	72.51	77.98	83.64	89.50	96.80	105.60
2014	44.24	45.00	46.26	48.06	50.42	53.34	56.84	60.99	65.78	71.14	76.59	82.34	88.29	95.59	104.40
2015	42.93	43.69	44.94	46.74	49.09	51.99	55.48	59.62	64.39	69.74	75.17	80.89	86.84	94.14	103.00
2016	41.60	42.36	43.60	45.40	47.74	50.63	54.11	58.24	62.99	68.32	73.74	79.34	85.14	92.44	101.30
2017	40.25	41.00	42.24	44.03	46.36	49.24	52.71	56.83	61.56	66.87	72.27	77.86	83.64	90.94	99.80
2018	38.88	39.62	40.85	42.63	44.95	47.82	51.28	55.38	59.99	65.28	70.66	76.23	81.99	89.29	98.10
2019	37.49	38.22	39.44	41.21	43.52	46.38	49.82	53.90	58.50	63.76	69.14	74.71	80.46	87.76	96.50
2020	36.08	36.80	38.01	39.77	42.06	44.90	48.32	52.39	56.97	62.22	67.59	73.14	78.86	86.16	94.90
2021	34.65	35.36	36.56	38.31	40.59	43.41	46.81	50.86	55.43	60.66	66.01	71.54	77.24	84.54	93.20
2022	33.20	33.90	35.09	36.83	39.10	41.90	45.29	49.32	53.87	59.08	64.50	70.01	75.69	82.99	91.60
2023	31.73	32.42	33.60	35.33	37.59	40.37	43.75	47.77	52.30	57.49	62.88	68.36	74.01	81.31	90.00
2024	30.24	30.92	32.09	33.81	36.05	38.82	42.19	46.20	50.71	55.88	61.25	66.71	72.34	79.64	88.30
2025	28.73	29.40	30.56	32.27	34.50	37.25	40.61	44.60	49.09	54.24	59.60	65.04	70.64	77.94	86.60
2026	27.20	27.86	28.99	30.69	32.90	35.63	39.00	42.97	47.44	52.57	57.91	63.33	68.91	76.21	84.90
2027	25.65	26.30	27.41	29.10	31.29	34.00	37.35	41.31	45.76	50.87	56.20	61.61	67.17	74.47	83.10
2028	24.08	24.72	25.81	27.49	29.66	32.35	35.69	39.64	44.07	49.16	54.50	60.00	65.54	72.84	81.40
2029	22.49	23.12	24.19	25.85	28.00	30.67	34.00	37.93	42.34	47.41	52.73	58.14	63.63	70.93	79.50
2030	20.88	21.50	22.55	24.19	26.32	28.96	32.27	36.18	40.57	45.63	50.94	56.33	61.79	69.09	77.60
2031	19.25	19.86	20.89	22.51	24.62	27.24	30.54	34.43	38.81	43.86	49.15	54.52	60.00	67.30	75.80
2032	17.60	18.20	19.21	20.81	22.90	25.50	28.77	32.64	36.99	41.99	47.26	52.61	58.00	65.30	73.80
2033	15.93	16.52	17.51	19.09	21.16	23.74	27.00	30.85	35.18	39.96	45.21	50.54	55.94	63.20	71.70
2034	14.24	14.82	15.79	17.35	19.40	21.96	25.20	29.03	33.34	38.09	43.32	48.61	53.99	61.20	69.70
2035	12.53	13.10	14.05	15.59	17.62	19.99	23.21	26.92	31.21	35.94	41.15	46.43	51.79	59.00	67.50
2036	10.80	11.36	12.29	13.81	15.82	18.17	21.37	25.06	29.24	33.90	39.09	44.30	49.59	56.80	65.30
2037	9.05	9.60	10.51	12.01	14.00	16.34	19.51	23.18	27.34	31.96	37.13	42.34	47.61	54.80	63.30
2038	7.28	7.81	8.70	10.18	12.15	14.46	17.61	21.25	25.39	30.00	35.15	40.34	45.59	52.80	61.30
2039	5.49	6.00	6.87	8.33	10.28	12.56	15.61	19.16	23.28	27.95	33.06	38.21	43.41	50.60	59.10
2040	3.68	4.17	5.02	6.46	8.39	10.64	13.61	17.14	21.24	25.93	31.02	36.14	41.31	48.50	57.00
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