



FOUNDED IN 1962

AVMARK INC.®

WORLDWIDE AVIATION MARKETING AND MANAGEMENT SERVICE

MAY 2016

Newsletter

Market Comment

USA

EXECUTIVE OFFICE

PO Box 189
Vienna, VA 22183 – USA
Tel: +1-202-241-6419
Fax : +1-202-618-6267
enquiries@avmarkinc.com

PUBLISHING OFFICE

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

EUROPE

AVMARK ESPAÑA

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

LATIN AMERICA

AVMARK-SLEM S.A.

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

ASIA & ASIA-PACIFIC

AVMARK ASIA-AMS

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

Boeing 737 MAX 10. The manufacturer may install the larger CFM International LEAP-1A engine on the 737 MAX to compete with the Airbus A321neo, which is outselling the MAX 9 by four to one. **Boeing** could stretch the 178-seat jet to add 12 or more passengers and increase the fuel tanks. This would give the jet trans-oceanic range and more capacity than the 185-seat A321neo. However, the new MAX 9 derivative, nicknamed the 737 MAX 10, would require significant changes. The larger engine would force **Boeing** to install longer landing gear and that might lead to repositioning the gear in the wing. The certification of the new parts and stretched fuselage could cost from \$1 billion to \$2 billion, according to industry experts. Using a different engine on the largest 737 lessens the commonality with the smaller LEAP-1B engines used on the rest of the 737 MAX fleet. A **General Electric** spokesman said there was no contractual prohibition to **Boeing** using a larger engine. He said, “The LEAP engine was designed to have growth capability.” **Boeing Commercial Airplanes** CEO **Ray Conner** said that **Boeing** was studying several options for developments and had made no decisions. In the face of **Airbus’** preponderance of orders in the upper end of the single-aisle twin jet market, **Boeing** is looking at a variety of tactical and strategic moves that could give it a head start in developing the next generation of jets for production from 2030. It also needs to defend the 757 niche, which it is failing miserably. This is the space between the narrowbody 737 and big widebody jets. **Boeing’s** share of the market for single-aisle jets has fallen to 40 percent, down from a recent 50-50 split with **Airbus**. **Boeing** is also considering two smallish twin-aisle jets that can carry 220 and 260 people respectively. The smaller base model would fly about 4,500 nautical miles, and the larger one would have a range of about 3,500 nm. Those planes would cost \$15 billion or more to develop. **Airbus** could retaliate with a new wing and maybe a stretch of the A321neo, to boost performance and capacity. **Airbus** Sales Chief **John Leahy** dismissed the possibility that **Boeing** would fit a larger engine on its 737 MAX 9. He called the putative MAX 10 “Mad MAX” because of the technical challenges the program would face. Mr. **Leahy** told journalists that **Boeing** would probably go ahead with the upgrade rather than build the costlier jet in the ‘middle of the market.’

Maybe Boeing Needs to Choose “All of the Above” and build a mid-market 737 MAX 10 as well as the new technology jet that will replace single-aisle jets in the early 2030s. That would require the company to

May 2016

Page 2 of 23

Table of Contents

Market Comment 1

AIRCRAFT & ENGINE ORDERS

Airbus 2
Boeing 5
Regional 6
Order Changes 7
Leasing Companies 8

AVIATION BUSINESS

Airline News 9
Engines 11
Technical 12
Cargo Pallet 13
Military Market 14

AIRCRAFT DELIVERIES, SALES & LEASES

Airbus 15
Boeing 17
Regional Jet 19
Turboprop Aircraft 21
Antiques 21
Accidents & Safety 22

PUBLICATIONS & FORMS

Avmark Capabilities
Avmark Publication
Samples
Current Avmark
Publications
Publication Form

stop laying off design staff and start investing in a future where oil is expensive again and there are alternative fuels for turbine engines.

Airbus Orders

Airbus booked 85 aircraft in April, including 21 contracts that raised A350 XWB orders to near the 800 mark. The airframer delivered 52 aircraft from its current jetliner families, including the first U.S.-built A321. **China Eastern Airlines** purchased 20 A350-900s, which will join the Chinese carrier's current fleet of nearly 300 aircraft. It is currently one of the largest **Airbus** operators worldwide and flies jets from the A320 and A330 Families. An undisclosed customer also acquired one A350-900 during the month. With these bookings, a total of 798 A350 XWBs had been ordered by 42 customers, as of April 30. An **Undisclosed Customer** bought 20 A330s on April 29, comprised of 13 A330-300s and seven A330-200s. **Airbus** signed contracts for 44 A320 Family aircraft. **Delta Air Lines** ordered for 37 A321ceo (current engine option) aircraft, which raised the U.S. operator's overall A321-200 bookings to 82. **Air Côte D'Ivoire**, the national airline of Ivory Coast, bought two A320ceo and two A320neo (new engine option) jetliners. Latin America's **Avianca** acquired three A320neos and cancelled three A320ceos. Taking cancellations and conversions into account, the 2016 gross orders totaled 92 jetliners.

The Manufacturer delivered 41 A320 Family aircraft, six A330s, two A350 XWBs (for **Singapore Airlines** and **Finnair**) and three A380s (two to **Emirates**, and one for **Etihad Airways**). It delivered the first A321-200 assembled at the new U.S. final assembly line in Mobile, Alabama, to **JetBlue**. **Airbus** intends to build four aircraft per month at the Mobile facility by the end of 2017. It delivered eight A320 Family aircraft to five carriers in the United States including **American Airlines**, **Delta Air Lines**, **Frontier Airlines**, **JetBlue** and **Spirit Airlines**. The manufacturer has now delivered more than 7,000 A320 Family aircraft. **Airbus'** backlog stood at 6,746 aircraft to be delivered as of April 30.

Delta Air Lines placed an order for 37 Current Engine Option A321 aircraft worth \$4.25 billion (\$114.9 million each) at list prices. It took delivery of its first A321ceo in March, from previous orders for 30 A321s that were placed in September 2013 and 15 A321s placed in June 2014. Including the latest announcement, **Delta** has ordered 82 A321s, which will be powered by **CFM International** CFM56 engines. **Ed Bastian**, **Delta's** incoming chief executive, said, "The order for the A321s

May 2016

Page 3 of 23

is an opportunistic fleet move that enables us to produce strong returns and cost-effectively accelerate the retirement of **Delta's** 116 MD-88s in a capital efficient manner.” **John Leahy, Airbus** Chief Operating Officer – Customers, said, “In 2015, nearly 40 percent of our A320 Family deliveries were A321s, up some 10 percent from the previous year. All of **Delta's** A321s will feature fuel-saving Sharklet wingtip devices that offer up to 4 percent fuel-burn savings. Many of **Delta's** A321s will be assembled by the **Airbus U.S. Manufacturing Facility** in Mobile, Alabama, and all 82 will be delivered by the end of 2019.

Air Côte D'Ivoire, Abidjan, Ivory Coast, signed a firm order for two A320ceo and two A320neo aircraft in April. The A320s will be fitted with **CFM** engines, and feature a two class cabin layout. The national airline is a new customer for **Airbus** and the first African airline to order the A320neo. **Air Côte D'Ivoire** already leases four A319s and one A320.

Airbus won orders for 20 A330s from an **Undisclosed Customer**. The order was a mix of seven A330-200s and 13 A330-300s and it was signed on April 29. **Airbus** recently opted to raise its monthly production of A330s to seven aircraft next year, from the current output to six. Another **Undisclosed Customer** ordered a single A350-900. The airframer is aiming to hand over at least 50 A350s in 2016.

Airbus Orders, Deliveries and Backlog April 2016

APR ORD	APR DEL	APR CANX	TOTAL ORD	TOTAL DEL	BACK LOG
			A318		
-0-	-0-	-0-	80	80	-0-
			A319		
-0-	-0-	-0-	1,472	1,455	17
			A319neo		
-0-	-0-	-0-	58	-0-	58
			A320		
-0-	24	-3	4,749	4,216	563
			A320neo		
7	1	-0-	3,340	6	3,334
			A321		
-0-	16	-0-	1,683	1,263	420
			A321neo		
-0-	-0-	-0-	1,117	-0-	1,117
			A330		
20	6	-0-	1,448	1,276	172
			A330neo		
-0-	-0-	-0-	186	-0-	186
			A350		
21	2	-0-	798	21	777
			A380		
-0-	3	-0-	319	187	132
This Month			This Year		BL
85	52	-3	92	177	6,746

Airbus sold 16,443 aircraft and delivered 9,697 as of April 30, 2016. Twenty-five orders were cancelled. Total orders, deliveries and backlog include cancellations and order changes.

China Eastern Airlines has signed a contract for 20 **Airbus** A350-900s, in April, as part of its long-haul fleet modernization program. The planes will be delivered from 2018 to 2022, with two A350s arriving in 2018, three in 2019, and two in 2020. The remaining 13 will be delivered in 2021 and 2022. All the A350s will be powered by **Rolls-Royce** Trent XWB engines. The A350 deal was valued at just

May 2016

Page 4 of 23

under \$6 billion (\$300 million each), but the airline said the airframer granted significant price concessions. The new A350s will replace a dozen A330s. With this latest order, **Airbus** said it won 803 firm A350 XWB orders from 43 customers worldwide. So far 20 A350 XWBs have been delivered to five customers.

There is a Five A350 Order Discrepancy between the official **Airbus Orders and Deliveries** web page which states that 42 customers have ordered 798 A350s and the **Airbus** press release that said the **China Eastern** order raised the A350 order total to 803 from 43 customers. Expect **Airbus** to announce the five orders in June or at **Farnborough Airshow** in July.

The LEAP-1A A320neo Received the Type Certification from the European Aviation Safety Agency (EASA) and Federal Aviation Administration (FAA) on May 31, 2016. This paves the way for the delivery of the first **CFM International** LEAP-1A engined A320neo in mid-2016. The award followed the initial **EASA** and **FAA Certificate of Airworthiness** for the A320neo, powered by the **Pratt & Whitney** engine by six months. The first A320neo was delivered on January 20, 2016. The two LEAP-powered aircraft assigned to the flight test campaign have now accumulated more than 1,000 flight hours in more than 350 flights – including 150 flight hours completed with the same aircraft in an airline-like environment to ensure operational maturity at entry into service. Certification of the remaining aircraft/engine variants with LEAP engines will follow in the coming months. When all flight testing has been completed, the NEO development fleet (with both engine options) will have achieved a combined total of 3,000 flight hours. Since its launch on December 1, 2010, the A320neo Family has received more than 4,500 orders from over 82 customers, representing some 60 percent share of the market.

Airbus is launching the ACJ350 XWB, a new corporate-jet version of the A350 airliner, which expands its corporate jet family with an aircraft that delivers more capacity, capability and comfort. The ACJ350 XWB features 270 square meter/2,910 square feet of cabin space in the -900 version. The ultra-long range variant can fly 25 passengers up to 10,800 nm/20,000 km or for 22 hours. **Airbus** said, “Widebodies such as the ACJ350 offer the equivalent of several houses of floor space, so creating cabins that meet demanding certification rules can be challenging, especially when they are installed within a fuselage made of new materials such as carbon fiber.” As part of its **Easyfit** program, **Airbus** will pre-equip the ACJ350’s carbon fiber fuselage with hundreds of attachment points which will greatly simplify the work of cabin outfitters. It is working extensively with several cabin outfitters to ensure smooth completions for customers. The ACJ350 XWB offers new standard features such as an onboard airport navigation system (OANS), like GPS in a car, and a runway overrun prevention system (ROPS), an aid for pilots that helps to prevent runway excursions, especially in challenging weather, **Airbus** said.

The First Airbus A350-1000 is now structurally complete in Toulouse, and it is on schedule to make its maiden flight by year-end. **Airbus** has not yet set the date for the official roll-out, but it said the first aircraft (SN 059) “is progressing well in the final assembly line” and “first flight is on track to happen by the end of the year.” The stretched, 366-seat version of the A350-900 is equipped with **Rolls-Royce** Trent XWB-97 engines, and the main landing gear incorporates six-wheel bogies rather than the four-wheel units on the A350-900. **Airbus** will build three A350-1000 flight-test aircraft and the first production -1000 is due for delivery in mid-2017.

May 2016

Page 5 of 23

Boeing Orders

Boeing Sold 34 New Aircraft in April. FedEx bought one 777-200F, for a total of 32. One **Unidentified Customer** purchased 10 737-800NGs, and another **Unidentified Customer** bought eight 737-800NGs. A third **Unidentified Customer (China Eastern Airlines)** signed a contract for 15 787-900s in April. The manufacturer delivered 34 737NGs, eight 777s and 10 787s, for a total of 52.

China Eastern Airlines finalized an contract for 15 787-9 Dreamliners, on April 28, valued at nearly \$3.9 billion (\$260 million each) at current list prices, but the airline said the airframer granted significant price concessions. The airline plans to operate the new 787-9s on routes between China, North America and Europe when they are delivered between 2018 and 2021. Four 787s will be handed over in 2018, followed by six in 2019, and the other five in 2020 and 2021. **China Eastern** did not make an engine selection for the 787-9s. **China Eastern** ordered 15 787-8s in November 2005, but ditched them in March 2012 and ordered 45 737-800NGs. The airline will use the 787s to replace six **Boeing 767s**.

In May, FedEx Express bought yet another 777-200F, for a total of 33. **Japan Transocean Air** ordered one 737-800NGs and an **Unidentified Customer** purchased eight 737s. At the same time, one customer dropped eight existing 737 orders. Presumably the customer switched its commitments to the 737 MAX version. Another **Unidentified Customer** bought seven 737s, and four previous 737 orders were cancelled. Customers have scratched 26 737 orders and four 787s this year. **Boeing** identified **Arik Air** as the customer for eight 737s previously listed as unidentified. **Norwegian** ordered eight 737s and **VietJet Air** bought 100 737 MAX 200s.

VietJet Aviation Joint Stock Company and **Boeing** signed an order for 100 737 MAX 200 airplanes at a ceremony at the Presidential Palace in Hanoi, which was witnessed by **Trần Đại Quang**, President of the Socialist Republic of Vietnam, and U.S. President **Barack Obama**. This was the largest single com-

Boeing April 2016 Orders, Deliveries

APR ORD	APR DEL	APR CANX	TOTAL ORD	TOTAL DEL	BACK LOG
737					
18	35	-0-	10,274	9,001	1,273
737 MAX					
-0-	-0-	-0-	3,090	-0-	3,090
747					
-0-	-0-	-0-	1,543	1,520	23
767					
-0-	1	-0-	1,164	1,085	79
777					
1	8	-0-	1,590	1,392	198
777X					
-0-	-0-	-0-	306	-0-	306
787					
15	10	-0-	1,139	393	751
This Month			This Year		BL
34	54	-0-	127	176	5,720

Boeing sold 26,651 aircraft and delivered 20,931 as of April 30, 2016

The Current Program includes sales and deliveries of 737s, 747s, 767s, 777s and 787s. Sales totals include 16 cancellations.

May 2016

Page 6 of 23

ercial airplane purchase in Vietnam aviation history, and was valued at approximately \$11.3 billion (\$113 million each) at current list prices. The airplanes will be delivered from 2019 through 2023, and they will support the growth of **Vietjet's** domestic and international network in the region. This agreement also helps **Vietjet** to increase its fleet to more than 200 airplanes by the end 2023. The low-cost carrier started operations in December of 2011, and it is seeking to expand in a market that's grown 20 percent annually in the last three years, the airline reported. The 737 MAX incorporates the latest technology **CFM International** LEAP-1B engines, Advanced Technology winglets and other improvements to deliver the highest efficiency, reliability and passenger comfort in the single-aisle market. The new single-aisle airplane will deliver 20 percent lower fuel use than the first Next-Generation 737s and the lowest operating costs in its class – 8 percent per seat less than its nearest competitor. **Boeing** said.

Norwegian Air Shuttle, the Scandinavian low-cost carrier, will lease a pair of 787-9 Dreamliners from **CIT Aerospace** in 2018, and it will lease another two 787-9s from **AerCap** the same year. The lease deals were announced in March. By 2020, **Norwegian** will operate a fleet of 42 787s. The airline also exercised eight of its 100 737 MAX 8 options in May, taking its firm orders for the re-engined narrowbody to 108. **Norwegian** was the European launch customer for the MAX 8, and will receive their first one in 2017.

Regional Report

Bombardier Commercial Aircraft sold nine Dash 8Q-400 Next Gen turboprops to **WestJet Encore**. The transaction represented the conversion of options into firm orders by the airline's parent company **WestJet**, and it will increase **WestJet Encore's** fleet to 45 Q400 aircraft. The transaction was valued at \$293 million (\$32.5 million each) at list prices. **Kevin Smith**, VP, Regional Aircraft, at **Bombardier Commercial Aircraft** said, "In just three years **WestJet Encore's** operations have grown from two Q400 aircraft serving just two cities, to 28 aircraft serving 36 destinations in Canada and the U.S. With this order, **WestJet Encore** has 17 aircraft still to be delivered which will allow further expansion of the airline's network."

The First Embraer E-Jets E2 Flew on May 23. The program reached another important milestone when the prototype E190-E2 (E190-300 STD, SN 19020001) flew from the manufacturer's facility in São José dos Campos, Brazil, for three hours and 20 minutes. The flight was originally scheduled for the second half of this year. The plane was rolled out of the factory in late February, and it is the first of three new second-generation E-Jet E2 models. The E190-E2 certification campaign will run until 2018, when the E2 is scheduled to enter commercial service. The flight evaluated aircraft handling and performance characteristics with the crew analyzing a significant number of flight parameters, including speed, altitude and landing gear retraction. This was made possible by the high level of maturity that the E2 reached during program development through the extensive use of digital modeling simulations and ground and static tests that employed rigs and an iron bird, **Embraer** said. Captain **Mozart Louzada**, said, "There are always a lot of expectations with a first flight and today's was no exception. The flight was very smooth. We were able to significantly open the flight envelope by flying at Mach 0.82, climbing to 41,000 feet and retracting the landing gear and flaps, and engaging the fly-by-wire in normal mode. All of these demonstrate that the E190-E2 project is very mature and robust, and exceed all performance targets." **Embraer** will use four prototypes in the E190-E2 certification program. Two additional aircraft will be assigned for the E195-E2 certification process that will lead to entry into service in 2019. Three more aircraft will be used to certify the E175-E2 which is scheduled to enter service in 2020. The E190-E2 has the same number of seats as the current-generation E190 and can be

May 2016

Page 7 of 23

configured with 97 seats in dual class or 106 seats in a single-class layout. It has 400 nautical miles more range than the current-generation E190 and gives operators the ability to fly the aircraft up to 2,800 nautical miles. To date, **Embraer** has won 640 commitments from airlines and leasing companies, of which 267 are firm orders and 373 are options and purchase rights. The E-Jets E2s will be powered **Pratt & Whitney** PurePower Geared Turbofan high bypass ratio engines (PW1700G on the E175-E2, PW1900G on the E190-E2 and E195-E2).

Order Changes and Cancellations

Airbus Changes. Two of the 12 **Undisclosed** A319neo orders were dropped, leaving **Airbus** with a total of 58 orders in April. Nine **Undisclosed** A320-200 orders were transferred to six airlines and one lessor in China. All nine A320s were delivered during the month. **Air China** added one -200, for a total of 35. **China Development Bank Financial Leasing (CDB Leasing)** picked up its eighth -200 and leased it immediately to **China Eastern Airlines**. The airline also bought its 116th -200. **China Southern Airlines** obtained its 92nd and 93rd -200s, and **Loong Air** received its fourth -200. **Shenzhen Airlines** added its 58th -200, and **Spring Airlines** acquired two -200s for a total of 32. The **Undisclosed** A320-200 order total now stands at 101. **Avianca Holdings** transferred three A320-200s to **Avianca** which changed them to three A321neo orders in April. **Avianca** also switched nine A320-200 orders to the A321neo type. **Avianca** now has taken delivery of the 39 A320-200s it ordered and it has 92 A320neos and 16 A321neos on order. **Avianca Holdings** currently has two A320-200s on order and has taken delivery of four A320-200s. **Wizz Air** exchanged three A320-200 orders for three larger A321-200s in April. **Air Lease Corporation** switched one A320neo order to the A321neo, to raise that total to 118. **LATAM Airlines Group** dropped four A320neo orders and picked up four A321neos. The group now has orders for 48 A320neos and 19 A321neos. **Nile Air** exchanged its two A320-200s for two A321-200s. **Spirit Airlines** cancelled all 10 A321neo orders and will take 10 more A320neos, for a total of 50 instead. **China Eastern** got one previously undisclosed A321-200 for a total of 48, as did **Sichuan Airlines**, for a total of 24. Both airlines took delivery in April. The number of undisclosed A321neo orders was increased by two. **Emirates** picked up two of the A380s that **Skymark Airlines**, Japan, cancelled last year. The orders were transferred from **Undisclosed** to the airline in April. **Undisclosed** orders now stand at nine

Republic Airways Holdings' six-year-old order for 40 **Bombardier** CS300 jets is still on the manufacturer's backlog but the company removed the order from its long-term production schedule, **Bombardier** chief executive **Alain Bellemare**, said. The **Republic** order was originally assigned to **Republic's** former subsidiary **Frontier Airlines**. The low-cost airline was spun off three years ago, but the parent kept the CS300 orders. Now, the holding company's financial restructuring under bankruptcy protection cast the C-Series order in doubt. **Republic** is now planning its operations around a fleet of **Embraer** E-Jets. Mr. **Bellemare** commented that "The **Republic** order is still in the backlog but it's not in the skyline. Right now we're still working with them." Loss of the order puts a dent in **Bombardier's** backlog but the recent sales of 45 CS300s to **Air Canada**, **AirBaltic's** firming of seven CS300 options and **Delta Air Lines** signing a firm order for 75 CS100s at the end of April have made the loss less onerous. Mr. **Bellemare** said, "We have so many aircraft in the backlog right now. If you take a few aircraft out of the backlog, we will still be in a good position." Indianapolis-based **Republic** signed an order for 40 CS300s and took options for another 40 options in February 2010. The CS100 will enter service with launch operator **Swiss International Air Lines** in July, and the first 135-seat CS300 is expected to go into service six months later with **AirBaltic**.

May 2016

Page 8 of 23

A319neos, 10 A319neos, 101 A320ceos, 410 A320neos, 87 A321ceos, 59 A321neos, 14 A330-200s, 31 A330-300s, two A330-900s, three A350-900s and 10 A380s.

Boeing did not report any cancellations in April.

Leasing & Finance

Air Lease Corporation (ALC) placed two new **Boeing** 787-9 Dreamliners on long-term lease to **Oman Air**. The aircraft are scheduled to be delivered in 2018 and 2020, from **ALC's** backlog with **Boeing**. This new agreement follows **Oman Air's** announcement in August 2015, that it would lease 14 additional jet aircraft from **ALC**, including three new **Boeing** 737-800s, seven new 737 MAX-8s, one new 787-9 Dreamliner, one used 737-700 and two used 737-800s. **ALC** will long-term lease three new **Airbus** A321-200s, one new A321neo and one new A320neo to **WOW air** (Iceland). One of the A321-211/Ws (SN 7127) was delivered to the airline in May and the remaining two A321-200s will be handed over in the third and fourth quarter of this year. The A320-200neo and A321-200neo aircraft are scheduled to be delivered in the first quarter of 2017 and the same period in 2018, respectively. **ALC** will purchase the three A321-200s from **LATAM Airlines Chile** just after delivery by **Airbus**, and the two NEOS are from **ALC's** order book with **Airbus**. **Air Lease Corporation** announced it will long-term lease another two new **Airbus** A350-900 aircraft to **Malaysia Airlines Berhad**. This deal follows **ALC's** agreement to lease four new A350-900s to the airline in September 2015. The two new aircraft are scheduled to arrive in the second quarter of 2018 and come from **ALC's** order book with **Airbus**.

Air Lease Corporation (ALC) announced record quarterly financial results for the three months ended March 31, 2016. Items of note include record quarterly revenues of \$343.3 million, an increase of 23.4 percent or \$65.0 million as compared to \$278.3 million for the same quarter in 2015. **ALC** recorded a quarterly adjusted net income of \$151.1 million with an adjusted margin of 44.4 percent during the period as compared to \$112.8 million with an adjusted margin of 40.5 percent in 2015. It placed 85 percent of its order book on long-term leases for aircraft delivering through 2018. **ALC** maintained 100 percent utilization of its current fleet with only 10 percent of its leases due to expire over the next three years. The lessor purchased aircraft worth \$731.6 million during the quarter, including 10 aircraft from its backlog and one used aircraft. It sold 12 **ATR** aircraft worth \$221.5 million during the period. **ALC** expects to complete the sale of its remaining **ATR** fleet during the next quarter and to sell the remaining five **ATR** aircraft on order upon delivery (over the next two quarters).

CIT Aerospace, a global leader in aircraft finance, signed a total of 22 agreements in the first quarter of 2016, for current and future commercial aircraft leases. **CIT Aerospace** leased 16 new and used aircraft and extended some leases of the existing fleet, to its airline customers around the world. **CIT Aerospace** owns finances and manages a fleet of more than 350 commercial aircraft serving approximately 100 customers in 50 countries.

During the First Quarter of 2016, **AerCap** executed 131 aircraft lease transactions, including 36 widebody transactions. Its fleet utilization rate for the first quarter of 2016 was 99.3 percent and the average remaining lease terms were 6.1 years. Ninety percent of new aircraft deliveries through 2018 have been leased under a contract or letter of intent on an average 12-year lease term, **AerCap** said. The lessor has \$9.1 billion of available liquidity, and a debt/equity ratio of 2.8 to 1. **Aengus Kelly**, CEO of **AerCap**, commented: "**AerCap** produced strong first quarter results, demonstrating the consistent

May 2016

Page 9 of 23

earnings power of our global leasing platform. We delivered adjusted earnings per share of \$1.54, and expect to generate \$800 million of excess capital during 2016. We continue to see global demand for our aircraft and have access to \$9.1 billion of liquidity to meet our strategic objectives. Our proactive portfolio management initiatives, coupled with return of capital, are focused on maximizing long-term value for our shareholders.” **AerCap’s** adjusted net income was \$301.6 million, slightly down from the \$302.1 million earned in the same period in 2015. It reported net income of \$223.1 million, which was 30 percent less than the \$311.5 million income in the same period in 2015. **AerCap’s** basic lease rents were \$1,139.3 million for the first quarter of 2016, down slightly from the \$1,157.9 million in the previous period. The decrease was primarily due to the sale of older aircraft; the lessor’s average lease assets for the first quarter of 2016 were \$35.5 billion, compared with \$36.4 billion for the same period in 2015. Its net gain on sale of assets in 2016 was \$19.0 million from the sale of 19 aircraft and nine aircraft reclassified to finance leases. In the previous year, **AerCap** gained \$33.7 million from the sale of 12 aircraft and five aircraft reclassified to finance leases.

Airline News

Southwest Airlines is on a record shopping spree. **Jon Stephens**, Director of Fleet Transactions, said imports are integral to what, he described as a “beautiful plan” to swap out some of its oldest models without spending lavishly. The carrier is acquiring 83 used **Boeing 737-700s** from around the world. It recently bought two ex-**Transaero** 737s. **Southwest** and its U.S. competitors are awash in cash and looking for second-hand jetliners from developing nations because cheap fuel makes older, less-efficient aircraft more economical to operate. This runs counter to the tradition of North American carriers selling hand-me-down planes to airlines in emerging-markets. **United Continental Holdings** is importing as many as two dozen used **Airbus A319s** from China, and **Delta Air Lines** is looking at buying used 737s from its Brazilian alliance partner, **Gol Linhas Aereas Inteligentes SA**, which is shrinking and restructuring operations. U.S. airlines are taking advantage of their sophisticated maintenance operations to extend the service life of older planes. North American airlines, including **Allegiant**, **Delta** and **Southwest**, added 198 used jets last year. The demand for smaller trunkliners has kept them out of the scrapper’s hands. Only one A319 and one 737-700 were disassembled for parts in 2016, compared with 17 in 2015. There is a risk of a glutted market because **Airbus** and **Boeing** are boosting their monthly output to about 60 single-aisle jetliners each by the end of the decade. Over the next five years lessors will have an inventory of more

Eight Budget Airlines from Australia, Japan and Southeast Asia, formed the world’s largest low-cost airline alliance, which will allow customers to book connections using a shared platform. The **Value Alliance** includes **Scoot** and **Tigerair** in Singapore, **Cebu Pacific**, the Philippines, **Jeju Air**, South Korea, Thailand’s **Nok Air** and **NokScoot**, **Tigerair**, Australia, and **Vanilla Air**, Japan. The alliance will serve more than 160 cities with a collective fleet of 176 aircraft, their press release said. **Value Alliance** members flew more than 47 million travelers from 17 hubs in 2015. **Lance Gokongwei**, CEO of **Cebu Pacific**, said, “Customers will be able to view, select and book the best-available airfares on flights from any of the airlines in a single transaction, directly from each partner website. **Value Alliance** is a clear example of how [budget airlines] can accomplish more by working together than we could do individually.” It is of note that the largest low-cost carriers, such as **AirAsia**, Malaysia, **Jetstar**, Australia, **Lion Air**, Indonesia, **IndiGo**, India, and **VietJet Air**, Vietnam, are not in the alliance, hence it could be the alliance is directed at competing with the low-cost giants. One airline analyst thought the alliance will be better for the member airlines than the passengers they serve. The airlines will be able to align airfares and this could reduce price competition.

May 2016

Page 10 of 23

than 900 new narrowbody aircraft that do not have customers. Ironically, prices for older 737-700 jetliners actually rose last year because **Southwest's** domination of the market skewed demand. In 2018, the low-cost carrier expects to operate nearly half of the 1,116 -700s that **Boeing** has built to date. Prices and lease terms proved to be so attractive that **Southwest** decided to replace its 121 maintenance-intensive 737 Classics with -700s as soon as 2017. The Classics were delivered between 1989 and 1997. The used 737-700s are also replacing **SWA's** fleet of ex-**Air Trans** 717s, which it sold to **Delta**.

American Airlines may return two **Airbus** A319s to lessors in 2017, if the leases are not extended. It currently operates 106 leased and 19 owned A319s.

Lessors will receive 11 A319s in 2018, 18 in 2019 and 10 in 2020. Another 61 of the type are scheduled to return to lessors by 2024. If **American** sticks to its schedule, it will operate 84 A319s at the end of 2020 and just 19 by 2025. The A319 fleet age averages 12.2 years; the planes were delivered between October 1998 and June 2015. **American** will not replace its A319s with similarly sized airplanes. It has firm orders for 34 160-seat **Boeing** 737-800s and 100 737 MAX 8s, and 38 **Airbus** A321s and 100 A321neos with 190 seats. There will be a big gap between the 100-seat **Embraer** E-Jets and the trunkliners. It is keeping the youngest A319s in the fleet, and will update them with new cabin amenities.

International Air Transport Association (IATA) Posts May 2016 Jet Fuel Prices. The association updates the world's average jet fuel prices each week. On May 13, the world's average price of fuel was \$1.131 per gallon, 8.6 percent higher than the April 2016 price. Fuel was also 31.8 percent less than it was in May 2015. The price of fuel is affected by location. It was only \$1.268 in the Middle East region and was \$1.377 per gallon in Latin America, which was the highest-priced region. In Asia, fuel cost \$1.293 per gallon. Fuel rose to \$1.311 in Europe, and to \$1.315 in North America. Since last year, fuel costs in those regions dropped by 30.8 and 34.0 percent respectively.

Portugal's Minister of Planning and Infrastructure, Pedro Marques wants to connect Portugal to the Far East "as soon as possible" so the government will look favorably at **HNA Group** buying 7 percent of **Atlantic Gateway**. The private consortium currently owns 50 percent of **TAP Portugal**, having bought it last year. **Humberto Pedrosa**, the majority partner in **Atlantic Gateway**, said the **HNA Group** stake could climb to as much as 20 percent. As part of this convoluted deal, **HNA**, which is the parent company of **Hainan Airlines**, China, agreed to buy a 23.7 percent stake in **Azul Linhas Aéreas Brasileiras** for \$450 million in November, 2015. **Azul** is partially owned by **David Neeleman**, who is another major partner in **Atlantic Gateway**.

HNA Group, the parent company of **Hainan Airlines**, China, will buy 13 percent of **Virgin Australia**, so that each carrier will have greater access to the other's home markets. The airlines will launch direct Australia-China flights and co-operate on frequent flyer and code-sharing. **HNA**, the largest private airline operator in China, will invest A\$159 million (\$114 million) through an equity placement, for the **Virgin Australia** shares and it plans to buy up to 19.99 percent. A current shareholder, **Air New Zealand** plans to sell off its 22.5 percent of **Virgin**. The deal is part of **HNA's** \$10 billion push to buy overseas assets so that it can compete with its country's state-backed airlines. **HNA** bought stakes in **Azul**, Brazil, and **TAP Portugal**, and owns Turkish aircraft maintenance firm **myTechnic** and ground-handling firm **Swissport**. Its **Bohai Leasing** unit bought the Irish lessor, **Avolon**, in January, giving it a fleet of more than 500 planes in total. **HNA** is now trying to buy a stake in **Air France-KLM's** catering business too. **Virgin Australia** CEO **John Borghetti**, said, "This is a strategically important alliance." China was Australia's fastest-growing and most valuable inbound travel market, he said. Mr. **Borghetti**

May 2016

Page 11 of 23

expects to see **Virgin Australia** aircraft in China in the first half of 2017, with major cities including Beijing and Hong Kong the likely destinations. **Virgin Australia** needs the cash to pay down its debts so that it can better compete with **Qantas**. **Etihad Airways** now holds 21.8 per-cent of **Virgin Australia**, **Singapore Airlines** owns 20.1 percent, and founder **Sir Richard Branson's Virgin Group** retains 8.7 percent.

Boeing Will Deliver a Record Number of Airplanes to Turkish Airlines (THY) this year. The flag carrier will receive six 777-300ERs and 20 Next-Generation 737-800s in 2016. Its fleet now stands at more than 311 airplanes and is growing quickly. **Ahmet Bolat, Turkish Airlines' Chief Investment and Technology Officer**, said, "The delivery of 26 **Boeing** aircraft this year, which form a substantial part of our long-haul and short-haul fleets, are integral to **Turkish's** continued growth and we look forward to introducing the new planes on our domestic and international network." **Turkish Airlines** and **Boeing** share a long history that goes back to 1945, starting with the arrival of the airline's first **Douglas DC-3/C-47** airliners. **Turkish Airlines** entered the jet age in 1967, when the airline began operating **McDonnell Douglas DC-9s**, and later, **Boeing 707s** and **DC-10s**. Since then, **THY** has flown the **Boeing 727**, **757**, **MCDD MD-80** and the most modern **737** and **777** airplanes. **Turkish Technic**, a prominent subsidiary of the airline, is a world-class maintenance center for **737** airplanes, with certifications from regulatory authorities throughout the region and beyond, **Boeing** said.

Engines

Delta Air Lines selected **CFM International CFM56-5B** engines to power the 37 **Airbus A321ceo** (Current Engine Option) aircraft that it ordered in April. The first airplanes are scheduled for delivery in 2017. The order also includes a five-year **Material Support Agreement (MSA)** for the **CFM56-5B/-7B** engines in the **Delta** fleet. These **A321s** will join the other 126 **CFM**-powered **A319** and **A320** aircraft that **Delta** current operates. The airline recently took delivery of its first **A321-200** and is using the aircraft to gradually replace less-efficient **MD-80** aircraft that are being retired from its fleet.

Pratt & Whitney and Vietjet Air celebrated the airline's selection of the **PurePower Geared Turbofan (GTF)** engines to power 63 **Airbus A320neo** and **A321neo** aircraft that it ordered in 2014 and 2015. The first **A320neo** deliveries are expected in 2017. **Pratt & Whitney** said it has more than 7,000 orders, including options for the **PurePower Geared Turbofan** engine family, from more than 70 customers in more than 30 countries. The **PurePower** engine family has completed more than 58,000 cycles and 35,000 hours of testing. **Vietjet** operates an extensive flight network in Vietnam and is expanding its operation throughout the Asia-Pacific region. The airline's mission is to meet the increasing travel demands of domestic and international travelers by providing on-time flights and a high quality of service, helping to lead the

SMBC Aviation Capital, the world's third largest aircraft leasing company, has ordered ten **CFM International LEAP-1A** engines to power five **Airbus A320neo** aircraft. The engine order was valued at \$140 million (\$14 million each) at list price. This is a follow on to **SMBC's** initial **LEAP-1A** order for 60 engines that the company announced at the **Paris Air Show** in June 2015; the 30 aircraft were part of an order for 110 **A320neos** placed in 2014. A long-time **CFM** customer, Dublin-based **SMBC Aviation Capital**, currently has a fleet of more than 350 aircraft powered by **CFM56** and **LEAP** engines in service or on order. The **LEAP-1A** engine is on track to enter into service in mid-2016 and will provide operators with a 15 percent improvement in fuel efficiency; an equivalent reduction in **CO2** emissions; a 50 percent margin to new emissions regulations, and a dramatically lower noise signature, **CFM** said.

May 2016

Page 12 of 23

Vietnam aviation industry into a new era. The airline ordered 100 **Boeing 737 MAX 200s** fitted with **CFM International LEAP-1B** engines in May.

The Federal Aviation Administration Certified Pratt & Whitney's PurePower PW1400G-JM engine which will power **Irkut Corporation's MC-21 aircraft**. Three Geared Turbofan (GTF) engine variants have been certified for the **Airbus A320neo Family**, the **Bombardier CSeries** and most recently for the MC-21. "This milestone is another huge step forward for the PurePower engine program, which brings unmatched operational benefits including double-digit reductions in noise, emissions and fuel burn, making for greener skies," said **Greg Gernhardt**, President, Commercial Engines Programs, **Pratt & Whitney**. "The technology behind the GTF engine is a game-changing force in the aviation industry for all the right reasons and we are excited that the PW1400G-JM engine is moving one step closer to powering **Irkut's MC-21 aircraft** and providing the renowned benefits for which this engine is so highly regarded."

Technical

The Boeing 737 MAX 8 completed high altitude flight testing in La Paz, Bolivia, and returned from the first international trip by a member of the 737 MAX flight-test fleet. The airport's 13,300-foot (4,050-meter) altitude tested the MAX's capability to take off and land at high altitudes, which can affect overall airplane performance. The company said, "The engines and other systems performed well, as expected, under extreme conditions. That's exactly what we wanted to see." The three test airplanes completed more than 100 flights and flight testing for the 737 MAX is on schedule. The fourth test airplane will fly in the coming weeks, and the MAX program is on track for first delivery in the third quarter of 2017.

Rolls-Royce dispatched the first 'shipset' of four engines to **Airbus** as part of its largest order for 200 engines from **Emirates**. The Trent 900 engines left **Rolls-Royce** factory at Derby, U.K., for Toulouse, France, where they will be fitted to an A380 aircraft. The airline's first of 50 A380-841s will enter service later this year. The engine manufacturer is providing **TotalCare®** service as well as Trent engines to **Emirates**. **Eric Schulz**, **Rolls-Royce**, President-Civil Aerospace, said, "This is an important milestone in delivering the largest order in our history for a highly-respected customer. We look forward to celebrating **Emirates'** first **Rolls-Royce** powered A380 flight and ensuring the entire fleet has a smooth entry into service." The **Emirates** order was announced last year and confirmed the Trent 900 as the engine of choice on the four-engine A380. It has now secured more than 50 percent market share on the aircraft, in addition to being selected by the majority of A380 customers, **Rolls** said. **Emirates** recently confirmed that it will operate two additional A380s that will be powered by the Trent engine with **TotalCare®** service support. The two A380-842s (SN 162 & 167) were cancelled by **Skymark Airlines**, Japan, last year, and picked up by **Emirates** in April. The Trent 900 powered the first commercial A380 in 2007, and it is now used by eight operators on more than 70 aircraft, having logged nearly five million in-service flight hours. The Trent 900 is assembled in both Derby and Singapore.

Deer Jet, China, the largest business jet company in Asia, will become the first operator of a VVIP BBJ 787, **Boeing** announced at the **European Business Aviation Conference and Exhibition (EBACE)**, the largest business aviation event in Europe. The VVIP BBJ 787 is truly a "Dream Jet", **Boeing** said. It has a range of 16,000 kilometers and can fly nonstop for 17.5 hours at Mach 0.85. Its lower cabin pressure, fresher air and the 220 square meter large cabin area would ensure an extremely comfortable flying experience. **Denzil White**, President of **Deer Jet's** subsidiary **Hong Kong Jet**, said, "This VVIP BBJ 787 is the most high-end business jet in the world. Becoming its operator shows the strength of

May 2016

Page 13 of 23

Deer Jet's global operations capabilities.” **Deer Jet** currently operates nearly 90 business jets, including four BBJs, which means it already has significant experience operating **Boeing Business Jets**.

Comlux America, based in Indianapolis Indiana, signed their 12th VIP interior completion for a BBJ 737-700IGW aircraft. The aircraft entered their facility in January and it is scheduled for completion in March 2017. This **Boeing Business Jet** completion is for a private customer based in the Far East.

Cargo Pallet

FedEx Acquired TNT Express. The acquisition was valued at €4.4 billion (\$4.924 billion) and it combines the strengths of the companies, which are the world's largest air express network and an unparalleled European road network. The deal will expand **FedEx's** existing portfolio and reshape the global transportation and logistics industry. “This acquisition is a significant accomplishment and marks the beginning of a new era, filled with promise for our people, customers and shareowners,” said **FedEx** Chairman and CEO, **Frederick W. Smith**. “We are proud to celebrate the joining of two iconic companies and the approximately 400,000 team members who are committed to serving customers around the world. The timing of this historic event is important, particularly in the current market environment where global e-commerce is growing at double-digit rates.” Mr. **Smith** commented, “Adding **TNT's** capabilities to our existing world-class suite of services, including **GENCO** and the recently relaunched **FedEx CrossBorder**, will further expand the ability of **FedEx** to support business connections around the world.” **FedEx** has started the process of integrating the two operations, and it has a good track record of successful acquisition integrations in the U.S. and globally.

PEMCO World Air Services, a cargo aircraft conversion company, redelivered another **Boeing** 737-300 freighter (SN 28972) to China-based **SF Airlines**, in April. **SF Airlines** is a leading courier in China and provides delivery service to over 15 countries, including the United States. The conversion was performed by **PEMCO's** partner **STAECO** in Jinan, Shandong, China. This was the 15th 737-300/400 **PEMCO** converted aircraft to be completed for **SF Airlines** since 2013. Four more **PEMCO** converted aircraft will be added to **SF Airlines'** cargo fleet in 2016. The 737-300 freighter provides nine pallet positions, up to 43,100 pounds of payload, 4,600 cubic feet of total volume, and a max range exceeding 2,000 miles. Today **PEMCO** and its three regional conversion installation partners, provides seamless global product support to operators of their **Boeing** 737 converted freighters.

Aeronautical Engineers, Inc. (AEI) signed an contract to provide up to 30 twelve-pallet position **Boeing** 737-800SF conversions for an undisclosed customer in May. The agreement includes 15 firm orders and 15 options. The first modifications will begin in late 2018, and the planes will be redelivered to the customer beginning in 2019. To date, **AEI** has received a total of 80 firm orders and commitments for its twelve-pallet position 737-800SF. The first aircraft for the 737-800SF conversion program is currently at **Commercial Jet's** facility in Miami, Florida.

Demand for Global Air Freight fell 2 percent in March on subdued growth in world trade, **IATA** reported. Another reason for the drop was the impact of a U.S. port strike that had bolstered year-earlier figures. Available capacity rose 6.9 percent in the month, with load factor down by 4.0 percentage points to 43.5 percent. “Expectations of purchasing managers give little optimism for an early uptick. The combination of fierce competition, capacity increases and stagnant demand makes this a very difficult environment in which to generate profits,” **IATA** Director General **Tony Tyler** said in a statement. Demand for air freight is measured in freight ton kilometers.

May 2016

Page 14 of 23

Aeronautical Engineers signed a contract with **Automatic** in May, to provide two 11-pallet position **Boeing 737-400SF** freighter conversions. The standard gross weight, 1993-era, aircraft (SN 25844 & 25859), are being modified by **Commercial Jet** in Miami, Florida. The freighters will be re-delivered to **Automatic** in September 2016 and January 2017, respectively. In April, **AEI** was contracted by **Vallair**, Châteauroux, France, to convert four 737-400s into 11-pallet position -400SF freighters. All of the conversions will be performed at **Commercial Jet's** Dothan, Alabama facility. Work on the first airplane started in May and the rest will follow in June, July and September 2016.

Precision Aircraft Solutions has received a total of eight new orders for **Boeing 757-200PCF** passenger-to-freighter conversions – two from **China Air Cargo Corp.**, a new cargo airline, and eight from **China Postal Airlines**, based in Beijing. **Precision's** 757-200 freighter and combi configurations lead the conversion industry with the lowest operating empty weight in production, the highest payload possible, the greatest weight upgrades available, and the only winglet-compatible design in the world, the company said.

Military Market

Airbus Defence & Space Flew the 14th and Final **Royal Air Force A330 Voyager** tanker to the **ILA Berlin Airshow** (ahead of its planned delivery to the program's manager **AirTanker** in July). The plane (SN 1610) flew from **Airbus's** Getafe, Spain, production facility and landed at **Schönefeld Airport** in Berlin, where it was displayed to the public at the **ILA**. This last aircraft fulfills the 2004 **Future Strategic Tanker Aircraft (FSTA)** contract, and followed the delivery of **FSTA13 (SN 1601)** in February. These two A330s were converted into civilian configuration after delivery. Nine of the 14 Voyagers in the U.K.'s **FSTA** fleet are full time tankers in **RAF's** fleet and the other five are considered "surge" aircraft, including these last two. Three other **NATO** countries, the Netherlands, Norway and Poland will jointly operate a fleet of A330 multirole tanker transports under the **Multinational MRTT Fleet (MMF)**, and an order contract is pending. Germany may also join the **MMF** after the initial contract is signed, in order to replace its aging **Airbus A310** tanker fleet.

Boeing's KC-46 Tanker Program will miss its contractual deadline to deliver 18 ready-to-go aircraft to the **U.S. Air Force** by August 2017, due to ongoing issues with the KC-46's refueling systems. The new tanker is no stranger to schedule slips, and **Boeing** will have more time to implement the solution to

GE Capital Aviation Services (GECAS) announced that its first **Boeing 737-800NG** passenger-to-freighter conversion was started by Miami-based **Aeronautical Engineers Inc. (AEI)**. **GECAS** announced the launch of its **AEI** passenger-to-freighter conversion program at the **Paris Air Show** in June 2015. The 1999-vintage 737-86J/W (SN 29121) arrived in May and was previously operated by **Corendon Airlines**, Turkey. This will be **AEI's** first 737-800NG freighter conversion; the touch work and subsequent certification process are scheduled to take approximately one year. The aircraft will be equipped with a rigid cargo barrier and have 12 main deck pallet positions, including 11 88" X 125" AAA full height containers, plus a one-half width AEP/AEH container. The aircraft has a maximum structural payload of 23,500 kg (51,800lb) and a max range of over 2,100 nautical miles. **GECAS** plans to have **AEI** convert up to 20 of its 737-800NG passenger aircraft to freighters. Additionally the 737-800SF freighter will incorporate an 86" X 140" main cargo door and will include up to five supernumerary seats. The conversions will be performed at authorized **AEI Conversion Centers** at facilities in the U.S. and Asia. **GECAS** is also the launch customer for **Boeing's 738BCF Program**, and a similar 737-800 aircraft will be inducted into their program later this year.

May 2016

Page 15 of 23

a refueling boom loads issue identified during flight testing earlier this year. The first KC-46 is now due in August 2017, and the 18th tanker will be delivered in January 2018.

AIRCRAFT DELIVERIES & SALES

Airbus

Airbus A319. No Airbus A319s were delivered in April. **Allegiant** signed an agreement to buy **CEBU Pacific Air's** last four A319-111s. The aircraft are scheduled to be handed over in 2017 and 2018. **Allegiant** previously agreed to purchase six A319s from the Philippine low-cost carrier, and has taken delivery of three of them with the other three planes arriving later this year. By the end of 2016, **Allegiant** will have 16 A320s, 17 A319s and 52 MD-80s in service. The airline expects to add more aircraft as opportunities to buy arise.

Airbus A320. Airbus delivered 25 A320s during April, including the fourth -271n NEO (SN 6860) to **IndiGo**, India. The plane was sold to **Avolon** and leased back. The airplane is the first of a number of A320neo sale and leaseback transactions contracted with **IndiGo** and raises to 21 the number of aircraft leased by **Avolon** to **IndiGo**. In China, **BOC Aviation** took delivery of four -214/Ws during the month. It leased two -214/Ws (SN 7035 & 7077) to **Hong Kong Airlines**, one -214/W (SN 7068) to **Capital Airlines**, and one -214/W (SN 7080) to **Vanilla Air**. This was the first of three A320s that **BOC** will lease to **ANA Holdings** for its wholly-owned subsidiary, **Vanilla Air**. **China Southern Airlines** received two -214/Ws (SN 6974 & 6996). **China Eastern Airlines** accepted -214/W (SN 6950) and leased -214/W (SN 6959) from **CDB Leasing**. **Loong Air** bought -214/W (SN 6941), and **Spring Airlines** received two -214/Ws (SN 6931 & 6964) and sold them to **China West Air**, upon delivery. All five -214/Ws were built by **Airbus Tianjin Final Assembly Line (FAL)**. **Air China** took delivery of another -232/W (SN 7041), and **Shenzhen Airlines** obtained -232/W (SN 7075). Elsewhere in Asia, **CEBU Pacific Air** accepted its 29th -214/W (SN 7066) and **AirAsia** took delivery of two -216/Ws (SN 6972 & 7057). The Malaysian parent transferred the first -216/W to **AirAsia Japan** and the second -216/W to **Thai Air Asia**. It was purchased by **Avolon** as part of a sale and leaseback transaction. In Europe, **Vueling** purchased three more new -232/Ws (SN 7026, 7028 & 7109) from **Airbus**, and **easyJet** obtained two -214/Ws (SN 7067 & 7093). **Lufthansa** accepted -214/W (SN 7056), and transferred

Airbus U.S. Manufacturing Facility delivered the first A321-231/W (SN 6621) to **American Airlines** on May 17, at Mobile, Alabama. On hand for the occasion were executives from **Airbus** and **American Airlines** and representatives of the more than 350 employees at the facility. **Bob Lekites**, Executive Vice President-Customers, **Airbus Americas** said, "With this delivery, we are adding a very special aircraft to those already sporting the **American** livery – an **Airbus** aircraft built here in the U.S.A. This is the first of many **American Airlines** airplanes to be delivered from Mobile, and we are proud it will join a growing, thriving fleet." **Airbus** announced it would build a single-aisle assembly line in Mobile in 2012, and less than one year later, it broke ground on the \$600 million facility. The ceremonial inauguration of the plant took place in September 2015. The **American** aircraft made its first flight on April 19, 2016. **Airbus** will initially deliver A320 Family aircraft with the Current Engine Option (CEO), but will begin transitioning to New Engine Option (NEO) derivatives in late 2017.

May 2016

Page 16 of 23

it to **Eurowings**. U.S. airline **Virgin America** obtained -214/W (SN 7063).

BOC Aviation leased a 10th A320-232/W (SN 7100) aircraft to **Vistara** in May. This is part of the airline's 20 A320 aircraft lease contract with the company.

Air Lease Corporation (ALC) delivered one new A320-214/W (SN 7095) to **Frontier Airlines** in May – the first of two new A320 deliveries on long-term lease from ALC's order book with **Airbus**. The second -214/W is scheduled for delivery in the fall of 2016.

SMBC Aviation Capital leased an A320-200 aircraft to **Aerovias Del Continente Americano S.A. (Avianca)** in May. This is the third aircraft of a four-aircraft sale and leaseback transaction.

Airbus A321. **Airbus** delivered 16 A321s in April, including two -211/Ws (SN 7035 & 7061) to **Delta Air Lines**, and it will take delivery of another dozen A321s this year. **Spirit Airlines** received two -231/Ws (SN 7021 & 7058), and **JetBlue Airways** obtained its 22nd and 23rd of 46 -231/Ws (SN 6512 & 6988). The first -231/W (SN 6512) was built at the **Airbus U.S. Manufacturing Facility** at Mobile, Alabama. **American Airlines** accepted another -231/W (SN 7069), and **Frontier Airlines** acquired its seventh -211/W (SN 7097), and sold it to **GECAS** for lease back. **LATAM Airlines Group** took delivery of two -211/Ws (SN 7036 & 7081) and transferred the first to one to **LATAM Airlines Chile (LAN)** and the second to **LATAM Airlines Brazil (TAM)**. In Asia, **ICBC—Industrial and Commercial Bank of China** leased -231/W (SN 7052) to **Asiana Airlines**, and **BOC Aviation** leased -211/W (SN 7054) to **EVA Air**. **CIT Aerospace** leased -231/W (SN 7076) to **Beijing Capital Airlines**. The aircraft was powered by **IAE V2533-A5** engines and was the first airplane CIT has delivered to the airline. **Turkish Airlines** accepted -231/W (SN 7089), and **China Eastern Airlines** took delivery of -211/W (SN 7090).

WORLDWIDE AVIATION MARKETING AND MANAGEMENT SERVICE

SMBC Aviation Capital delivered an A321-231 (SN 2862) to **JSC Ural Airlines**, from its owned portfolio. This is the sixth aircraft that **Ural Airlines** has leased from **SMBC Aviation Capital**.

Airbus A330. **Airbus** delivered a fourth -202 (SN 1719) to **Iberia** in April, and the seventh -243F freighter (SN 1722) to **Turkish Airlines**. **Turkish** also received its 29th of 30 ordered -303s (SN 1713). **Scandinavian Airlines (SAS)** obtained its eighth and last -343 (SN 1715), and **China Southern Airlines** acquired its 21st of 24 -323s (SN 1714). **Delta Air Lines** add its sixth of 10 -302s (SN 1716).

Air Serbia, the national airline of the Republic of Serbia, leased its first widebody aircraft, an A330-202 (SN 885) from **Jet Airways**, India, in May. The A330 will be used on **Air Serbia's** Belgrade-New York route, which it will launch on June 23, 2016. This will be the first direct air service between Serbia and the United States in 24 years.

Tianjin Airlines leased its first A330-243 (SN 919) from **AerCap**, and the airline said the A330, together with A350s and A320s, will form the core of its fleet going forward. The A330 was leased to the airline's parent company, **Hainan Airlines** from delivery in April 2008 until it was transferred to **Tianjin** in May 2016. The A330 seats 260 passengers and was put into service from Tianjin to Kunming and Chengdu on May 7. It will fly to Moscow and London in June. **Tianjin** will add 15 aircraft to its fleet this year, including three A330s. It will retire four **Embraer** ERJ-145s. Over the next five years, the airline plans to add at least 10 A330s, which will help expand its international long-haul network. It also has 16 **Embraer** E195s and two E190-E2s on order.

May 2016

Page 17 of 23

AerFin, U.K., purchased **Airbus A340-312** (SN 374). The aircraft will return to operation following reconfiguration into a VIP transport. **AerFin** CEO **Bob James** commented, "We continue to experience market demand for quality A340-300 aircraft for continued operation under **AerFin** CFM56-5C4 engine and component support programs." The A340 will be operated by **Air X Charter**, Malta.

Airbus A350. **Singapore Airlines** accepted its second -941 (SN 030), and **Finnair** received its fifth -941 (SN 023) in April. **Finnair** has secured financing, arranged by **BNP Paribas**, for the A350 XWB, worth approximately €128 million (\$142.25 million). It uses a Japanese Operating Lease with Call Option (JOLCO) structure. **Finnair** CFO **Pekka Vähähyppä** said, "This transaction represents yet another successful A350-900 financing for **Finnair**, and the third we have done using this structure. This aircraft type is the base from which we will continue to execute our growth strategy in Asia."

Airbus A380. **Emirates** accepted its 76th and 77th -861s (SN 208 & 209) in April. The A380s are fitted with 615 seats in two classes. The Dubai carrier leased -861 (SN 208) from an **Amedeo** wholly-owned subsidiary, **AA4P Zeta**, which bought the plane for a reported \$275 million from **Emirates**. The leases run for 12 years at fixed rentals. **Etihad Airways** received its seventh -841 (SN 198) in April, and it took delivery of its eighth -861 (SN 199) in May. The airline has two more (SN 233 & 237) on order. **Airbus** has 132 of its flagship airliners on backlog.

Cathay Pacific Airways became the sixth airline to operate the A350-941 (SN 029) when the aircraft arrived at its home base in Hong Kong on May 28. **Cathay Pacific** has configured its A350-900 with a premium three class layout with a total of 280 seats, comprising 38 in Business Class convertible to fully lie-flat beds, 28 in Premium Economy and 214 in the main cabin. After an initial period of flying on regional routes, **Cathay Pacific's** A350-900 will begin long-haul operations later this year. The airline has ordered a total of 22 A350-900s and 26 of the larger A350-1000s.

WORLDWIDE AVIATION MARKETING AND MANAGEMENT SERVICE

Boeing

Boeing 737 NG. **Boeing** delivered 31 737-800s and four -900ERs in April, including eight -8AS/Ws (SN 44732, 44733, 44735, 44736, 44737, 44738, 44741 & 62691) to **Ryanair**. The airline has taken delivery of 408 -800NGs and it has 123 more -800NGs and 100 MAX-8s on order. **Turkish Airlines** received three -8F2/Ws (SN 60018, 60019 & 60031), and **SunExpress Airlines** bought two -8HC/Ws (SN 61180 & 61181). Also in Europe, **Norwegian Air Shuttle** acquired one -8JP/Ws (SN 42074) for a total of 71, and has 29 more on order. **Transavia Company SAS** obtained one -8K2/W (SN 62150), and transferred it to **Transavia France**. **Transavia France** also leased one -8K2/W (SN 41343) from **Air Lease Corp. (ALC)**. In Asia, **China Eastern Airlines** took delivery of its 55th and 56th -89P/Ws (SN 41487 & 61682) from a total order of 90. The later plane (SN 61682) was the 9,000th 737 that **Boeing** built, and it was transferred to **China United Airlines**. **GECAS** leased a 15th -86N/W (SN 43413) to **Hainan Airlines** and the second of five -86N/Ws (SN 60695) to **Air India Express**. A third -86N/W (SN 60696) was leased to the Indian carrier in May. **Donghai Airlines** acquired -83Z/W (SN 61272), and **Hebei Airlines** bought -8LW/W (SN 42967). **Shandong Airlines** accepted -85N/W (SN 61425), and leased -85N/W (SN 42154) from **Aviation Capital Group (ACG)**. **ACG** leased -89P/W (SN 42153) to **Shanghai Airlines**. **SilkAir** obtained -8SA/W (SN 44231), and **Lion Air** sold -8GP/W (SN 40060) to **Avolon** after delivery. It was leased to **Thai Lion Air**. In Africa, **Air Algérie** acquired -8D6/W (SN 60749). In the United States, **Boeing** delivered the 54th -8FV (P-8A Poseidon, SN 49945) to the **U.S. Navy**. **Southwest Airlines** received its 107th -8H4/W (SN 36653), and **American Airlines** accepted its 271st of 305 -823/Ws (SN 33338). Two U.S. airlines accepted two -900ERs each. **Alaska**

May 2016

Page 18 of 23

Airlines bought two more -990ER/Ws (SN 36351 & 61680) and it has 23 on order. **Delta Air Lines** acquired its 57th and 58th of 100 ordered -932ER/Ws (SN 31968 & 31969).

CIT Aerospace leased 737-8BK/W (SN 33017) to **Sun Country Airlines**, a U.S. airline based at **Minneapolis–Saint Paul International Airport**. The aircraft is powered by CFM56-7B26 engines. **AWAS** acquired two 737-800s from another lessor. The airplanes continue to be leased to **flydubai** and **Norwegian Air Shuttle**. **AWAS** will continue to acquire attractive aircraft on-lease globally.

GE Capital Aviation Services leased one 737-86N/W to its new Thai airline customer **NewGen Airways** to expand the carrier's fleet. A second leased -800 aircraft will be handed over in May. Both aircraft feature split scimitar winglets which reduce fuel burn by up to 2.3 percent on longer-haul routes compared to blended winglets. **NewGen Airways** is based in Bangkok, and currently operates scheduled and charter services to destinations in China with a fleet of four 737-400s and two 737-800s.

Boeing 767. **Boeing** delivered the 27th of 102 -3S2F(ER)s (SN 42721) to **FedEx** in April.

Boeing 777. **Boeing** delivered one 777F and seven -300ERs in April. **Qatar Airways** obtained the -FDZ freighter (SN 62083), and **Emirates Airlines** took delivery of its 84th of 120 ordered -31HERs (SN 42331). **Boeing** handed over one -39PER (SN 43278) to **China Eastern Airlines** and -31BER (SN 43227) to **China Southern Airlines**. **Swiss Global Air Lines** purchased its third of six -3DEERs (SN 44584), and **Air France** accepted another -328ER (SN 61701), filling a previously unannounced order. It was the airline's 70th 777. The French flag carrier played a pivotal role in the success of the 777 program and was the launch customer for both the 777-300ER in 2004 and the 777 Freighter in 2009. **Air France** took delivery of its first 777-228ER in March 1998. **Air Canada** received -333ER (SN 62400), and **TAAG Angola Airlines** acquired -3M2ER (SN 43254). The latest -300ER enables **TAAG** to augment its flagship service between Angola and Portugal, which increases to twice-daily effective June, 2016. **TAAG Angola Airlines** is based at **Quatro de Fevereiro Airport**, Luanda, and serves 31 domestic and international destinations with a fleet of 14 airplanes, including 737s and 777-200ERs.

China Airlines took delivery of the world's first co-branded 777 at Everett. This was the carrier's 10th 777-309ER (SN 43982), and it is painted in a **Boeing Centennial** paint scheme. Each of the airline's 10 777s can seat 358 passengers in a three-class layout which features the new "Family Couch" seats in economy class. The airline's Family Couch seats convert into a flat surface to provide passengers with added rest and relaxation.

Boeing 787. **Boeing** delivered two 787-8s and eight 787-9s in April. **Qatar Airways** acquired its 28th -8 (SN 383456), and it has another two -8s (SN 38347 & 38348) on order. **Scoot**, Singapore, received its fifth -8 (SN 37122) and it has three more -8s (SN 37123, 37124 & 37125) on order. **Air Canada** acquired two more -9s (SN 37172 & 37180) for a total of 10. **KLM Royal Dutch Airlines** took delivery of its first of 19 -9s (SN 42486) and it leases another four from **AerCap**. **British Airways** received its eighth -9 (SN 38626) in March. The deliveries of two more -9s (SN 38623 & 38624) were delayed by a shortage of seats from **Zodiac**. **Etihad Airways** acquired its sixth -9 (SN 39651), and **Saudi Arabian Airlines** obtained its fourth of eight -9s (SN 41547). **MG Aviation Limited** leased its second of four -9s (SN 37308) to **Norwegian Long Haul**. **Vietnam Airlines** accepted its fifth of eight ordered -9s (SN 39287).

May 2016

Page 19 of 23

Cabot Aviation, a division of **Air Partner** and an aircraft remarketing agent, was appointed by **Crystal Acquisition Company** to remarket a 787-8 aircraft. The aircraft is due for delivery in November 2016 and will have **GE** GEnx-1B70 engines. The aircraft will be configured with 262 passenger seats in an 18CC and 244YC configuration. **Cabot's** other current mandates include five **Boeing** 747-400 passenger and freighter aircraft for **China Airlines** and two 777-200ERs from **Kenya Airways**. The original mandate from **Kenya** was for four aircraft, but **Cabot** has already successfully sold and delivered two of these to **Omni Air International** in the U.S. In addition, **Cabot Aviation** also has mandates to remarket two **Embraer** E170LRs, one 737-700 and a **Bombardier** Challenger 850.

Air Austral celebrated the delivery of its first 787-8 Dreamliner (SN 34510) on May 23. It is one of the early build 787-8s (Line Number 22) that was rolled out without engines in 2010, and was originally allocated to **All Nippon**. It flew for the first time in January 2016, and ironically, it was the 300th 787-8 that **Boeing** delivered, six years after it was built. The newest addition to the **Air Austral** long-haul fleet touched down at **Roland Garros Airport** at Saint-Marie, Reunion, after a 10,500-mile (16,898-kilometer) delivery flight from the **Boeing Everett Delivery Center**. The airline announced its order for two 787-8 Dreamliners in 2015. The airline was founded in 1975 and currently operates nine aircraft to more than 10 destinations worldwide.

Boeing Cannot Deliver 787-8s to Ethiopian Airlines. The manufacturer completed the first (SN 34505, Line Number 12) of six early-build Dreamliners that **Ethiopian Airlines** ordered. It flew on May 11 and **Boeing** has nearly finished the second, (SN 34498, LN 14). It was rolled out in May and it was undergoing final assembly tasks of the interior and tail while sitting on the apron at Everett. Both planes were assembled in 2010 or 2011 but each will be considered new at the time of the first flight. The deliveries to **Ethiopian** are being held up by the fact that the **U.S. Export - Import Bank** cannot finance their purchase until it has three people on the bank's board. The bank needs a quorum of three out of five board members to approve loans of more than \$10 million. There are currently two sitting members, but the approval of a third board member is being blocked by a single U.S. Senator, **Richard Shelby** (R-Alabama). Mr. **Shelby** represents the state that is home of the new **Airbus U.S. Manufacturing Facility** at Mobile, Alabama.

Air China took delivery of its first 787-9 Dreamliner (SN 34305) in May and put it on display at Beijing. The flag carrier was the first airline in China to operate a 787-9. This is the first of 15 Dreamliners set to join the fleet. **Boeing** said the 787-9 complements and extends the 787 family. With the fuselage stretched by 20 feet (6 meters), the 787-9 can fly another 40 passengers an additional 285 nautical miles (527 km) compared to the 787-8, with the same exceptional environmental performance, **Boeing** said.

GE Capital Aviation Services (GECAS) purchased and leased back one **Boeing** 787-9 (SN 35270) with **Air Canada**. A second **General Electric** GEnx powered aircraft (SN 37170) is scheduled for delivery to the airline in June, and both aircraft are part of **Air Canada's** order book with **Boeing**. **Air Canada** placed an order for 37 **Boeing** 787s and the May delivery was the 20th 787 to join the fleet. The flag carrier is Canada's largest domestic and international airline and it serves more than 200 cities on six continents. It is among the 20 largest airlines in the world, and in 2015, it flew more than 41 million customers. **Air Canada** (including **Air Canada rouge**) currently operates a fleet of some 210 aircraft.

May 2016

Page 20 of 23

Regional Jet

Bombardier. **Air Nostrum**, Spain, acquired its 13th CRJ1000 (SN 19047) in April. **Trident Jet (Jersey)** wet-leased three new CRJ900LRs (SN 15401, SN 13402 & 15403) to **CityJet**, Ireland, which operates them for **SAS – Scandinavian Airlines'** regional airline. **SAS** acquired its 21st CRJ900LR (SN 15406) in May. **China Express Airlines** accepted CRJ900LR (SN 15397) in April, raising its fleet total to 23. **PSA Airlines** received two more CRJ900NGs (SN 15390 & 15393) in April and they will be operated for **American Airlines** under the **American Eagle** brand. The airline took delivery of three CRJ900NGs (SN 15404, 15405 & 15407) for **American Eagle** in May.

Embraer. **Embraer** delivered two EMBRAER 170-200 LR (E175) (SN 17000553 & 17000556) to **Republic Airlines** for operation for **United Express** in April. **American Airlines** acquired one more E175 (SN 17000550) for its **American Eagle** regional airline. The airplane is operated by an **American Airlines Group** subsidiary, **Envoy Air**, which now flies 12 E175s for its parent. **Embraer** delivered one EMBRAER 190-200 (E195) (SN 19000706) to **Tainjin Airlines** and E190 (SN 19000707) to **Colorful Guizhou Airlines**, China, in April.

Embraer delivered the first E190 (SN 19000708) to **J-AIR**, the regional subsidiary of **Japan Airlines**, on April 20. The inaugural revenue flight took place between Osaka (**Itami Airport**) and Kagoshima. A second E190 (SN 19000712) will be delivered shortly. **J-AIR** also operates 17 E170s and **Fuji Dream Airlines** operates three E170s and seven E175s. The E190 is configured in dual class with genuine leather seats.

TAP Express became the newest airline to operate **Embraer's** E-Jets in Europe, when it leased two ex-**Azul Linhas Aéreas Brasileiras** E190s (SN 19000495 & 19000550) from **Air Lease Corp.** The company launched scheduled E190 flights from Lisbon to various destinations of its intra-European network. The airline will acquire nine used E190s in the coming months. The airline will use the 106-seat E190s to replace Fokker 100 jets, planes that were in service for over 25 years. The aircraft will operate under the **TAP Express** brand, which is the new name for **Portugalia PGA Airlines**. The name change is intended to offer greater brand and product consistency for **TAP Portugal**, and strengthen its commercial identity.

Sukhoi. **CityJet** leased the first of 15 Superjet 100s (SN 95102), and it was delivered at Venice, Italy in May. The airline has options for 16 more in a \$1 billion deal which includes servicing. **CityJet** operates eight routes into the small **London City Airport** and a service linking to **Air France's** hub at **Paris Charles de Gaulle**. It expects to take delivery of three Superjets this year, with the remainder arriving from 2017.

Aeroflot accepted its 37th SSJ-100-95B (SN 95101) in April and leased it from **Sberbank Leasing**. It acquired its 38th SSJ (SN 95100) in May. The airline traded in its first 10 SSJs to the manufacturer and now has 28 Sukhoi Superjets in service. **Aeroflot** will receive another two SSJs (SN 95103 & 95107) later this year.

Sukhoi's civil aircraft division delivered two Superjet 100s in the first quarter, which was half the number delivered in the same period last year. The reduction in deliveries resulted in a 36 percent slump in revenues to 3.5 billion roubles (\$54 million) under Russian accounting standards – a decline in performance exacerbated by U.S. dollar-denominated contracts having contributed substantially to the previous year's activity. It said it delivered a total of 86 Superjets by March 31, 2016.

May 2016

Page 21 of 23

Turboprop Aircraft

ATR delivered ATR 72-600 (SN 1307) to **PNG Air**, Papua New Guinea, in April. **TransAsia Airways** received one -600 (SN 1318), and **Bangkok Airlines** accepted one -600 (SN 1320). **Flybe** leased -600 (SN 1322) from **AVAP** and is operating it for **SAS Scandinavian Airlines**. **Aer Lingus Regional's** new -600 (SN 1325) is being operated for the airline by **Stobart Air**. **Air India Regional** acquired its sixth -600 (SN 1268) in April. The airplane first flew in July 2015 and is leased from **Elix**. A second **Elix** ATR (SN 1273) was leased in May, and a third (SN 1279) is due shortly. Those two ATRs first flew in September, 2015. **Nesma Airlines**, Saudi Arabia, took delivery of their two first new ATR 72-600s (SN 1311 & 1312), in May. These aircraft were leased from **DAE Capital**, Dubai.

Nordic Aviation Capital (NAC) purchased and immediately leased back three **Embraer** E190s (SN 19000271, 19000295 & 19000330) and one E195 (SN 19000260) with long standing customer **Azul Linhas Aéreas Brasileiras**. The transaction also involved the continuation of four ATR 72-600 leases to **Azul** (SN 971, 992, 998 & 1054), as part of the larger **Air Lease Corp. (ALC)** transaction signed in December 2015. This raised to 24 the total number of aircraft currently on lease to the Brazilian airline. **Nordic Aviation Capital** recently leased one used E190 (SN 19000275) to **Austral Líneas Aéreas**, Argentina. This is the first delivery of a four aircraft lease deal signed in 2015. In addition, **NAC** delivered one E190 (SN 19000176) to **Arkia Israeli Airlines** and one **Bombardier** Dash 8Q-400 (SN 4406) to **Spicejet**, India, on lease. **Austral**, **Arkia** and **Spicejet** are all new customers to **NAC**.

Nordic Aviation Capital (NAC) leased the 13th new ATR 72-600 (SN 1321) to **PT Garuda Indonesia** in May. It is part of a 20 aircraft lease deal signed in 2014. **NAC** leased a second ATR 72-500 (SN 570) to **Canary Fly**, Spain, and it leased one -500 (SN 743) to **Air Pegasus**.

Bombardier delivered the 28th new Q400 NextGen (SN 4522) to **Westjet Encore** in April. The airline has one more (SN 4526) due soon. **Air Côte d'Ivoire** received his fourth Q400 (SN 4521). In May, **Air Canada Express** acquired two Q400s (SN 4523 & 4524). They are operated by **Jazz Air**.

Antiques and Other Junque

Werner Aero Services acquired another **Boeing** 737-781ER/W (SN 33879), which was powered by CFM56-7B engines and was operated by **ANA**, Japan, for the last nine years. The aircraft will soon be disassembled and the components will become available to support **Werner's** growing 737 customer base around the world. There is no record that the airplane was damaged in an accident so it is remarkable that such a young 737 would be parted out.

Vallair, Châteauroux, France, has acquired two 26-year old, ex-US **Airways** A320-231s (SN 065 & 077) in February 2016, and both aircraft will be ferried shortly to the company's facility for disassembly. The company is part of the Franco-Luxembourgish **Valliere Aviation Group** and was created in 2003. **Vallair** specializes in the acquisition of end of life A320, 737 and ATR aircraft. To date, the company has acquired more than 25 A320s, 20 737s and four ATRs along with 40 CFM56-3/-5 and V2500 power plants. **Vallair** said it provides solutions for aircraft and engine trading and leasing, spare parts sales and inventory management, cargo conversions and commercial aircraft disassembly and recycling. In addition, the company has state of the art composite repair facilities for nacelles, thrust reversers and flight controls (MRO).

May 2016

Page 22 of 23

VAS Aero Services, an aviation logistics and aftermarket service, purchased **Boeing 777-2H6ER** (SN 28414) from **Aircastle Advisor**. **Aircastle** will retain ownership of the aircraft's **Rolls-Royce Trent** engines and sell them separately, while **VAS** will disassemble the airframe and manage redistribution of the component parts to **VAS's** key OEM, airline, and MRO customers. The 18-year old airplane was operated by **Malaysian Airlines** until being retired in August 2015.

AerFin Ltd., U.K., acquired **Embraer E170** (SN 17000106) from **SMBC Aviation Capital**. "AerFin continues to work with a number of regional airlines to progress the continued operation of the E170 aircraft under an inclusive AerFin spares support program" said CEO **Bob James**. The ex-Finnair E170 was nearly 10 years old when it was retired in September 2015.

Accidents and Safety

From Aviation Safety Foundation

Silk Way Airlines, Azerbaijan, **Antonov An-12B** cargo airplane (4K-AZ25, SN 3341209) with nine crew members on board crashed in Afghanistan on May 18, 2016. Seven of the nine were killed, and the aircraft was written off when the plane failed to takeoff from **Dwyer** military airfield in southern Afghanistan.

EgyptAir Airbus A320-232 (SU-GCC, SN 2088) crashed into the Mediterranean Sea approximately 200 kilometers (120 miles) north of the Egyptian coast line at approximately 3:00 hours May 19. The aircraft was flying from **Paris-Charles de Gaulle Airport**, France, to Cairo after operating several flights the prior day. At about 19:00 hours local time, **EgyptAir** confirmed that pieces of wreckage were found in the sea. The press reported that the aircraft suddenly made a 90 degree turn left, followed by a 360 degrees turn in the opposite direction as it descended from FL370 to FL150 before disappearing off radars. The jet had sent a series of warnings indicating that smoke had been detected on board, shortly before it disappeared off radar screens, but the signals did not indicate what caused the smoke or fire on board the plane. All 56 passengers and 10 crew were killed. It was immediately speculated that a terrorist bomb destroyed the A320 but officials stressed that no scenario, including explosion, was being ruled out. During the search for the aircraft, **Egypt's Navy** found human remains, wreckage and the personal belongings floating in the Mediterranean about 290 kilometers (180 miles) north of Alexandria. Several countries, including Egypt and France are searching for the flight and cockpit voice recorders, but they have not been recovered. So far, no anti-government group has claimed responsibility.

Conair Aviation Convair CV-580 Airtanker (C-FEKF, SN 80) was engaged in fire suppression activities when it experienced a loss of directional control and left the runway upon landing at **Manning Airport**, Alberta, Canada, on May 5, 2016. The airplane was substantially damaged and the two pilots suffered minor injuries. Photos show the nose landing gear collapsed, and the no.2 engine prop separated completely while the no. 1 engine prop was severely damaged. The airplane first flew as a piston-engined CV340 in 1953.

Flightline Swearingen SA226-AT Merlin IVA cargo plane (EC-GFK, SN AT-062) suffered a landing accident at **Gerona-Costa Brava Airport**, Spain, on April 24, after a cargo flight from Barcelona. The Merlin carried out a gear-up landing with the aircraft coming to rest on the fuselage causing the propeller blades of both engines to become severely bent. The plane was delivered in 1978.

May 2016

Page 23 of 23

TAME Ecuador Embraer E190 (HC-COX, 19000372) experienced an apparently intentional emergency ground-loop during a runway overrun in light rain at **Mariscal Lamar International Airport**, Cuenca, Ecuador, on April 28, 2016. The airplane was substantially damaged, but there were no reported injuries among the six crew members and 87 passengers onboard.

Sudanese Air Force Antonov An-26 (registration and serial number unknown) crashed near El Obeid Airport, Sudan, and all five crew members were killed on April 30, 2016.

Air Vallée Fokker F.50 (SE-LEZ, SN 20128) landed at **Catania-Fontanarossa Airport**, Italy, on April 30, 2016, with its nose gear retracted. The nose landing gear failed to deploy, so the approach was abandoned and the F.50 entered a holding pattern to the east of the airport while the crew tried to troubleshoot the problem. Finally they had to perform a forced landing with the nose gear retracted. The **Fokker** was built in 1988.

Batik Air Boeing 737-8GP/W (PK-LBS, SN 39827) collided with **TransNusa Aviation Mandiri ATR 42-600** (PK-TNJ, SN 1015) on takeoff from **Jakarta-Halim Perdana Kusuma Airport**, Indonesia, on April 4, 2016. The 737 struck the ATR when the latter was being towed across the active runway. The left wing of the **Boeing 737** struck the empennage and left wing of the ATR 42-600. The **Batik Air** pilot immediately aborted the takeoff, and that aircraft stopped past the runway threshold and about 400 meters from the point of collision. Both airplanes caught fire and each sustained substantial damage. There were no reported injuries from the accident. The outer 3 meters of the 737's left wing was severed, while the ATR 42s left hand wing, outboard of the engine and entire empennage were severed. The ATR 42 was delivered in September 2014, and leased from **AeroCentury**. It was declared a write off after the accident. The **Batik 737** was delivered in November 2014, and is currently stored and awaiting repair or deconstruction.

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.

ASSET MANAGEMENT PROGRAMS

Aircraft appraisal, inspection and technical monitoring; analysis of market conditions and forecast of values; assistance with aircraft acquisitions and placement; valuation of facilities, equipment and other assets.

AIRLINE IMPROVEMENT PROGRAMS

Our staff undertakes corporate reviews of entire airlines or specific aspects of airline operations, advising airline executive management, government and international organizations (i.e. World Bank), on various aspects of airline restructuring and/or privatization. Specific issues addressed include airline valuation, strategic planning, scheduling and fleet planning, market development, revenue management, operations and maintenance efficiency. We also provide a full range of services for start-up carriers.

ECONOMIC & TECHNICAL ANALYSES PROGRAMS

We prepare traffic/operation forecasts and financial analysis for airport and other facilities planning; competitive evaluation of performance/design characteristics and market potential for new aircraft; critical assessment of capability, marketing strategy and opportunities for suppliers of products and services; and air service needs related to tourism development.

PUBLICATIONS

We publish the *AVMARK Newsletter* monthly; containing market information, various analyses and commentary; also reports all orders, purchase sales and leases of new and used transport aircraft. We also publish several other statistical compilations from our extensive database on aircraft, carriers, traffic, costs and operations.

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

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.

MARKET OVERVIEW

Most dynamic and fastest growing segment in market using old generation propeller aircraft to 30 million passengers using state of the art

Online Association (RAA):

Online:

ST:

Table of Contents

Introduction	1
Market Overview	2
Regional Jet Phenomenon	4
ATR 42	5
ATR 72	12
BAE ATP	19
BAE Avro RJ 70/85	23
BAE Jetstream 31/32	29
BAE Jetstream 41	36
Beech C99	40
Beech 1900	44
Canadair Regional Jet (CRJ) 100/200	51
Canadair Regional Jet (CRJ) 700	58
CASA 212	62
CN235	66
Dornier 228	70
Dornier 328	74
Dornier 328JET	78
Dornier 328JET	82
de Havilland DHC-6	86
de Havilland DHC-7	90
de Havilland DHC-8 100/200	93
de Havilland DHC-8 300	100
de Havilland DHC-8 400	104
Embraer 120 Brasilia	108
Embraer Regional Jet (ERJ) 135/140/145	112
Embraer 170	121
Metro	124
Fokker 50	128
Fokker 70	132
Let 410/420	136
Saab 340	140
Saab 2000	144
Shore 330	148
Shore 360	152

ATR 42-300

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

Specifications	
Accommodations	48
Passengers*	2
Pilots	1
Cabin Attendants	1
Powerplant	2 Pratt & Whitney PWC120 Turboprops
Rated Horsepower	1,800 SHP / 1,342 kW
Propeller	4 Blade
Dimensions	
Length	74 ft 5 in
Wingspan	80 ft 7 in
Height	24 ft 11 in
Wing Area	48 ft 3 in
Wing Loading	8 ft 5 in
Wing Span	8 ft 5 in
Wing Area	1,001.120 / 93 sq ft
Weight	
Empty Weight	38,815 lb
Max. Ramp Weight	36,155 lb
Max. Takeoff Weight	33,510 lb
Max. Landing Weight	22,875 lb
Max. Ramp Weight	10,836 lb
Max. Ramp Weight	9,820 lb
Max. Ramp Weight	62.83 lb / sq ft
Max. Ramp Weight	10.23 lb / sq ft

ATR 42-300

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

Optional Equipment: KLN 90A GPS/W, FMS, Area Navigation (RNAV), Microwave Landing System, VLF/Omega Long Range Navigation System, Dual Honeywell A2-800 Digital Air Data Computers, PA System, HF Radio, Collins Avionics in place of King Avionics, CAT II.

Avionics: EDE 820 Electronic Flight Instrument System (EFIS) - 4 CRT's for dual Altitude and Heading Reference Systems (AHRS) - 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 185

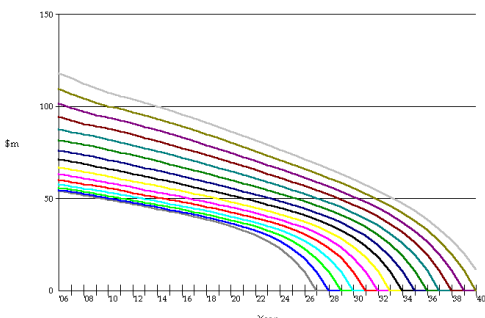
**Order your personal
copy of the 2015
TRANSPORT
AIRCRAFT VALUES
(TAV) today.**

Sample of Avmark Publications

TRANSPORT AIRCRAFT VALUES (TAV)

TAV reports current fair-market values by year of build and projects the future value of 116 transport category aircraft. The future values are based on an economic model that projects the values based on the earning stream of approximately 130 different types of aircraft for their useful lives. The model takes into account the operating cost and characteristics of each aircraft, worldwide and future traffic volumes, fare levels and current and future fleet compositions. The values are presented in both constant and then-current dollars.

CAVAS Graph



Profit & Loss Report

Aircraft Type		Airbus A340-300				
Period		1	2	3	4	5
REVENUES (US\$)						
Passengers	49,328,754	49,270,739	49,212,559	49,154,213	49,095,701	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					
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

Aircraft Type		Airbus A340-300				
Period		1	2	3	4	5
FIXED EXPENSES						
Station Overhead	346,597	345,923	345,249	344,575	343,901	
Maintenance Burden	176,295	351,824	526,586	700,581	873,810	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	35
General and Admin. Allocation	1,573,225	1,609,287	1,645,180	1,680,903	1,716,455	1
TOTAL COST	33,037,722	33,795,036	34,548,781	35,298,955	36,045,559	36
OPERATING PROFIT OR LOSS	26,156,782	25,329,851	24,506,290	23,686,100	22,869,282	22
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	22

Select Aircraft Type

Available Aircraft

- Airbus A300B4-600R
- Airbus A300B4-600RF
- Airbus A310-200
- Airbus A310-200F
- Airbus A310-300
- Airbus A310-300F
- Airbus A318
- Airbus A319-100
- Airbus A320-100
- Airbus 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

Add Modify Delete OK

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	54.73	56.56	58.99	62.01	65.62	69.85	74.66	80.37	85.92	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	56.71	59.69	63.26	67.51	72.44	77.95	83.52	89.32	95.81	103.39	111.58
2010	49.28	49.99	51.27	53.10	55.52	58.50	62.06	66.30	71.21	76.70	82.35	88.22	94.89	102.74	111.00
2011	48.05	48.77	50.05	51.88	54.30	57.28	60.83	65.06	70.05	75.53	81.25	87.19	94.12	102.14	110.40
2012	46.80	47.52	48.80	50.63	53.05	56.03	59.58	63.81	68.80	74.27	80.07	86.08	93.28	101.54	110.00
2013	45.53	46.25	47.53	49.36	51.78	54.76	58.31	62.53	67.52	72.98	78.85	84.94	92.32	100.74	109.00
2014	44.25	44.97	46.25	48.08	50.50	53.48	57.03	61.25	66.24	71.70	77.56	83.72	91.26	99.84	108.00
2015	42.96	43.68	44.96	46.79	49.21	52.19	55.74	59.96	64.95	70.41	76.26	82.40	89.92	98.64	106.50
2016	41.67	42.39	43.67	45.50	47.92	50.90	54.45	58.67	63.66	69.12	74.96	81.08	88.68	97.50	105.50
2017	40.38	41.10	42.38	44.21	46.63	49.61	53.16	57.38	62.37	67.83	73.66	79.76	87.34	96.25	104.25
2018	39.09	39.81	41.09	42.92	45.34	48.32	51.87	56.09	61.08	66.54	72.36	78.44	86.00	94.80	102.75
2019	37.80	38.52	39.80	41.63	44.05	47.03	50.58	54.80	59.79	65.25	71.06	77.12	84.66	93.45	101.50
2020	36.51	37.23	38.51	40.34	42.76	45.74	49.29	53.51	58.50	63.96	69.76	75.80	83.32	92.10	100.00
2021	35.22	35.94	37.22	39.05	41.47	44.45	48.00	52.22	57.21	62.67	68.46	74.48	81.99	90.75	98.50
2022	33.93	34.65	35.93	37.76	40.18	43.16	46.71	50.93	55.92	61.38	67.16	73.17	79.67	87.40	95.00
2023	32.64	33.36	34.64	36.47	38.89	41.87	45.42	49.64	54.63	60.09	65.86	71.86	78.35	86.00	93.50
2024	31.35	32.07	33.35	35.18	37.60	40.58	44.13	48.35	53.34	58.80	64.56	70.55	77.03	84.60	92.00
2025	30.06	30.78	32.06	33.89	36.31	39.29	42.84	47.06	52.05	57.51	63.26	69.24	75.71	83.20	90.50
2026	28.77	29.49	30.77	32.60	35.02	38.00	41.55	45.77	50.76	56.22	61.97	67.94	74.40	81.80	89.00
2027	27.48	28.20	29.48	31.31	33.73	36.71	40.26	44.48	49.47	54.93	60.68	66.64	73.00	80.40	87.50
2028	26.19	26.91	28.19	30.02	32.44	35.42	38.97	43.19	48.18	53.64	59.39	65.34	71.60	78.90	85.90
2029	24.90	25.62	26.90	28.73	31.15	34.13	37.68	41.90	46.89	52.35	58.10	64.05	70.30	77.60	84.50
2030	23.61	24.33	25.61	27.44	30.06	33.04	36.59	40.81	45.80	51.26	57.01	62.96	69.20	76.50	83.40
2031	22.32	23.04	24.32	26.15	28.77	31.75	35.30	39.52	44.51	50.07	55.82	61.77	67.90	75.20	82.10
2032	21.03	21.75	23.03	24.86	27.48	30.46	34.01	38.23	43.22	48.78	54.53	60.48	66.60	73.90	80.80
2033	19.74	20.46	21.74	23.57	26.19	29.24	32.79	36.91	41.90	47.46	53.21	59.16	65.20	72.50	79.40
2034	18.45	19.17	20.45	22.28	24.90	27.96	31.51	35.63	40.62	46.18	51.93	57.88	63.90	71.20	78.10
2035	17.16	17.88	19.16	20.99	23.61	26.66	30.21	34.33	39.32	44.84	50.59	56.54	62.50	69.80	76.70
2036	15.87	16.59	17.87	19.70	22.32	25.37	29.01	33.13	38.14	43.66	49.41	55.36	61.30	68.60	75.50
2037	14.58	15.30	16.58	18.41	21.03	24.08	27.72	31.85	36.86	42.57	48.32	54.27	60.20	67.50	74.40
2038	13.29	14.01	15.29	17.12	19.74	22.79	26.43	30.56	35.57	41.48	47.23	53.18	59.10	66.40	73.30
2039	12.00	12.72	14.00	15.83	18.45	21.50	25.14	29.26	34.28	40.19	45.94	51.89	57.80	65.10	72.00
2040	10.71	11.43	12.71	14.54	17.16	20.21	23.85	27.97	32.98	38.89	44.64	50.59	56.50	63.80	70.50
2041	9.42	10.14	11.42	13.25	15.87	18.92	22.56	26.68	31.69	37.60	43.34	49.29	55.20	62.50	69.00
2042	8.13	8.85	10.13	11.96	14.58	17.63	21.27	25.39	30.40	36.31	42.05	47.90	53.80	60.10	66.50
2043	6.84	7.56	8.84	10.67	13.29	16.34	19.98	24.10	29.01	34.92	40.66	46.51	52.40	58.30	64.80
2044	5.55	6.27	7.55	9.38	12.00	15.05	18.69	22.81	27.72	33.63	39.27	45.02	50.80	56.70	63.20
2045	4.26	4.98	6.26	8.09	10.71	13.76	17.40	21.52	26.43	32.14	37.74	43.45	49.20	55.00	61.50
2046	2.97	3.69	4.97	6.80	9.42	12.47	16.11	20.23	25.14	30.65	36.16	41.75	47.40	53.10	59.00
2047	1.68	2.40	3.68	5.51	8.13	11.18	14.82	19.03	23.84	29.35	34.66	40.07	45.50	51.00	56.50
2048	0.39	1.11	2.39	4.22	6.84	9.89	13.53	17.74	22.55	27.86	32.97	38.28	43.50	48.90	54.40
2049	-0.90	-0.18	1.10	3.01	5.63	8.68	12.24	16.45	21.26	26.37	31.48	36.79	42.00	47.30	52.80
2050	-2.19	-1.47	-0.19	1.72	4.34	7.39	10.90	14.91	19.42	24.53	29.64	34.75	39.80	45.10	50.50

US \$ 1,499.00 (1 year)

To Order, please visit us at
www.avmarkinc.com

or
fill out the form attached to this
publication

Current Avmark Publications

The AVMARK Newsletter:

\$445 US per year (Monthly issue)

Published since 1962, the AVMARK Newsletter reports all orders, purchase sales and leases of new and used transport aircraft. The Newsletter analyzes regulatory, economic and operational factors affecting the market for lease rates & value of transport aircraft. The Newsletter is a monthly “snapshot” of the industry & contains graphs & charts on major trends & developments.

Transport Aircraft Values:

\$1,499 US (One year)

Reports current fair-market values by year of build and projects the future value of all transport category aircraft. The future values are based on an economic model that projects the values based on the earning stream of approximately 130 different types of aircraft for their useful lives. The model takes into account the operating cost and characteristics of each aircraft, worldwide and future traffic volumes, fare levels and current and future fleet compositions. The values are presented in both constant and then-current dollars.

Historic Jet and Turboprop Values and Lease Rates:

\$350 US (One Issue, PDF Version)

Historic Jet and Turboprop Values is a summary of the then-current fair-market values as published in the AVMARK Newsletter for all jets and turboprops in service. The prices are based on reported transactions and on AVMARK’s experience in consulting, appraisal and fleet evaluation. The prices indicated are for the oldest of the type, in standard configuration in half-time maintenance condition. Price information is available from 1969 and Operating lease rates are available from 1988.

Small Transport Aircraft Catalog:

\$350 US per Year (Current)

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.

Samples of all publications are available upon request.

Publication Form

AVMARK, Inc.
PO Box 189, Vienna, VA 22183 – USA
Tel: +1-202-241-6419
www.avmarkinc.com

I would like to receive copies of the following AVMARK publications. My check in the amount of USD \$_____ (including appropriate S&H) is enclosed.

<u>PUBLICATIONS</u>	<u>PERIOD</u>	<u>ISSUES/VERSION</u>	<u>PRICE</u>
1. ___The AVMARK Newsletter	ONE YEAR	12 / Electronic	\$445.00
2. ___Transport Aircraft Values	ONE YEAR	1 / Paper	\$1,499.00
3. ___Historic Jet & TP Values & Lease Rates	ANNUAL	1 / PDF Version	\$350.00
4. ___Small Transport Aircraft Catalog	CURRENT	1 / PDF Version	\$350.00

Name	Title	Date
Company		
Address: Number & Street or P.O. Box		
City/State	Postal Code	Country
Telephone	Fax	
E-mail (used for sending Electronic copy of Publications)		
Signature		

PAYMENT:

Mail Order Form and Payment to AVMARK, Inc. at the above address. Order by phone +1-240-582-0119 or email us at enquiries@avmarkinc.com using **VISA, MasterCard, Discover, or AmEx.**

CC Type: VISA / MasterCard / Discover / AmEx; CC #: _____ Exp Date: _____

Wire transfer information available upon request.

For Office Use Only:

CC Approval #: _____ Date: _____

Customer No.: _____ Invoice No.: _____

