



FOUNDED IN 1962

AVMARK INC.®

WORLDWIDE AVIATION MARKETING AND MANAGEMENT SERVICE

JUNE 2015

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
mrmtomontana@msn.com

EUROPE

AVMARK ESPAÑA

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

LATIN AMERICA

AVMARK-SLEM S.A.

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

ASIA & ASIA-PACIFIC

AVMARK ASIA-AMS

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

The 51st International Paris Air Show 2015 was a record-breaking event with 2,303 exhibitors (up 4 percent from 2013) from 48 countries, 351,000 visitors (up 11.4 percent), with 151,000 trade visitors. The show offered 330 chalets and 26 national pavilions and 130 aircraft. Manufacturers displayed the **Dassault** Falcon 8X, **Bombardier** CS 300, **Pakistan Aeronautical Complex** JF17 fighter and the **Airbus Group** H160 helicopter for the first time. Business deals worth \$130 billion were announced including 934 commercial airliners from **Airbus**, **Boeing**, **ATR**, **Embraer**, worth an aggregate of \$112 billion, and from smaller manufacturers. **Airbus** reported 421 aircraft sales worth \$57 billion, **Boeing** sold 331 aircraft, valued at \$50.2 billion, and engine manufacturer **CFM** sold 835 CFM and LEAP engines worth \$14 billion; while **Airbus Helicopters** sold 52 helicopters valued at €550 million.

The Bi-Annual Paris Air Show bills itself as the “premiere event in the commercial air industry’s calendar” and it excites the most interest from businesses, journalists and the general public from around the globe. Its rival, the **Farnborough Air Show**, is held every even-numbered year and it attracts the same attention from manufacturers, airlines and the public. The press uses the alternating shows as a ‘rain gage’ for the aviation business, counting the numbers of announced sales and totaling the prices to see how healthy the industry is. In 2013, the 50th air show attracted over 315,000 visitors, 2,215 exhibitors, 150 aircraft and more than \$134 billion worth of orders announced. Last year, the **Farnborough International Air Show** recorded sales of almost 700 jets valued at \$115.5 billion. The **Paris Air Show** is a predominantly commercial event, and so it is restricted to commercial and business attendees on Monday through to Thursday and the 200,000 members of the public are crammed in from Friday through Sunday. The world’s largest air show, at Oshkosh, Wisconsin, has no commercial content and attracts approximately 12,000 private aircraft and 500,000 members of the public.

Neither of Commercial Aviation’s Hot Sellers, the **Airbus** A320neo, nor the **Boeing** 737 MAX were at **Paris** this year. The NEO Family has garnered more than 4,000 orders and commitments and its prototype is flying, but an engine problem kept it from coming to the show. The MAX has won 2,700 orders and commitments and the first one is being assembled in Seattle. Both planes may be ready by **Farnborough**. The

Table of Contents

Market Comment 1

AIRCRAFT & ENGINE ORDERS

Airbus	3
Boeing	10
Regional	15
Order Changes	20
Leasing Companies	22
Engines	23

AVIATION BUSINESS

Airline News	25
Bankruptcy	27
Technical	27
Cargo Pallet	27
Military Market	29

AIRCRAFT DELIVERIES, SALES & LEASES

Airbus	30
Boeing	33
Regional Jet	35
Turboprop Aircraft	36
Antiques	37
Accidents & Safety	39

PUBLICATIONS & FORMS

Avmark Capabilities
Avmark Publication Samples
Current Avmark Publications
Publication Form

slow selling **Bombardier** CS100 and CS300 won accolades at **Paris**, but the Canadian manufacturer did not announce any new orders.

It is Suspected that the manufacturers save up their orders so they can announce them at the show. They deny this, but it seems the airframers do announce a lot of soft orders couched in terms of “Memorandum of Understanding” and “General Terms Agreement.” When the commitments are later confirmed, the deals are announced again with big fanfare, so the manufactures receive double the publicity for their sales and dollar totals.

With Sales of the NEO and MAX reaching 6,700 before the first one is delivered, the engine and nacelle manufacturers were prominent. **Rolls-Royce**, U.K., **Pratt & Whitney**, U.S., **AVL**, France, **AENCOM**, Italy and **IHI Corporation**, Japan, were there and **General Electric** announced the sale of close to 1,000 **GE** and **CFM** engines worth \$19 billion.

Airbus Group won commitments for 421 aircraft, worth \$57 billion at the **2015 Paris Air Show**. The deals comprise firm orders for 124 aircraft worth \$16.3 billion and commitments for 297 aircraft worth \$40.7 billion. **Airbus** kicked-off the show with the first sale of the new **A330 Regional**, with **Saudi Arabian Airlines** taking 20 on lease from **IAFC**, a Middle Eastern lessor. Another 31 commitments for **A350-900s**, reinforced its position as the world’s most modern, advanced widebody aircraft, **Airbus** said. **EVA** bought four **A330s**. The 55 widebody sales recorded were worth \$15.6 billion at list price. **Airbus** sold 103 **A320 Family** aircraft and signed 263 commitments worth \$41.4 billion. Of these, 323 were **NEO’s**, taking total orders and commitments for the **A320neo Family** beyond 4,000 since its launch in December 2010.

Boeing sold of 331 jets valued at \$50.2 billion. **Airbus’** last-minute deal with **Wizz Air** for 110 **A320neo Family** jets put the Europeans over the top, besting **Boeing** for bragging rights. **Boeing** booked the biggest firm order at the show when **AerCap Holdings NV** bought 100 **737 MAX 8s**, list priced at \$10.7 billion. That was the biggest transaction in terms of numbers and value, until the **Wizz Air** memorandum of understanding for 110 **A320s**, worth \$12.5 billion. Those numbers are a bit inflated because **Wizz Air** cancelled 10 firm **A320ceo** orders worth approximately \$1 billion as part of the deal. **Boeing** said the **AerCap** contract was “intensely” negotiated over the course of past year. The lessor is interested in the larger **737 MAX 9** to

June 2015

Page 3 of 39

replace aging models in its fleet. Emerging-market carriers including **PT Garuda Indonesia** and **Qatar Airways** went shopping for 40 long-haul jets, illustrating the growth in travel in those regions. Cargo companies bought 29 widebody freighters. **Volga-Dnepr Group** signed a \$7.4 billion agreement for 20 747-8F freighters, **Qatar** bought four 777Fs, worth \$1.2 billion and **EVA** ordered five 777Fs list priced at \$1.5 billion. **Boeing's** sale of 71 widebodies boosted the per unit value of its **Paris** commitments,

Embraer won firm jet orders worth \$2.6 billion from **Aircastle** (25 firm and 25 optioned E-Jets E2s), **United Continental Holdings** (10 firm orders for E175s worth \$444 million at list price), **Guizhou Airlines** (seven E190s and 10 options, worth \$834 million), and **SkyWest Airlines** (eight E175s). **Bombardier** recorded five Dash 8 Q400 orders from **WestJet Airlines**, and **Deutsche Lufthansa** upsized 10 CSeries orders from the CS100 to the CS300 model. **ATR** announced 46 firm aircraft orders and 35 options, valued at \$1.98 billion.

For the First Time Since 2009, neither **Airbus** nor **Boeing** announced a new product launch and it was expected that sold-out backlogs and lower fuel prices would have suppressed the number of order announcements, but the pundits were wrong. **Flightglobal** reported that a total of 1,233 commitments for all types of aircraft were announced. This was 13 more than at **Farnborough** last year and some 300 below the 1,500 commitments made at **Paris** in 2013. Now the challenge is how to design and build all of the new aircraft that were launched and ordered over the past five years, and to do so without delays and earning a profit. Bugs and delays in development and cost overruns have plagued every new aircraft in the past decade. **Airbus** and **Boeing** will have to work hard with their suppliers to make sure that does not happen to the NEO and MAX.



Airbus Sold 18 A320 Family Aircraft in May, and delivered 47 airplanes from all of its current jetliner families. **Frontier Airlines** placed a firm order for two current engine option A320s and 10 A321neos. Singapore's **Tigerair** exchanged two of its A320ceo orders for the updated A320neo (new engine option) aircraft. **Air New Zealand**, **Israir**, Israel, and the **BOC Aviation** global aircraft leasing company each purchased another A320ceo. **Acropolis Aviation**, U.K., placed the launch order for the ACJ320neo, the new engine option variant of **Airbus'** ACJ320 corporate jetliner family. At the end of May, **Airbus** had booked 3,797 A320neo Family orders from 72 customers. In the first five months of 2015, **Airbus** recorded 247 orders before 22 cancellations were counted, resulting in 225 net orders.

In May, the Manufacturer Delivered the third A350 XWB to **Qatar Airways**, three A380s, and the first 242-tonne A330-300 variant to **Delta Air Lines**. **Airbus** delivered another A330-300, four A330-200s and 37 A320 Family aircraft. **Airbus'** backlog totaled 6,368 aircraft at the end of May.

Frontier Airlines placed a firm order for 10 A321 and two A320 aircraft in current engine option (ceo) configuration. The airline ordered its first

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

June 2015

Page 4 of 39

nine A321s in November 2014. Including this order, **Frontier** has a backlog of 101 **Airbus** single-aisle aircraft, and their current fleet consists of 34 A319s and 21 A320s. The newly ordered airplanes will feature light-weight composite Sharklet wing-tip devices. **Frontier** took delivery of its first **Airbus** aircraft in 2001 and transformed into an all-A320 Family fleet, which allowed the airline to optimize efficiency and economy by streamlining crew training and maintenance operations.

Air New Zealand ordered its 17th A320ceo in May. It bought one A320ceo and 10 A320neos (new engine option) and three A321neo airplanes in June 2014. The A320s will keep the airline competitive flying across the Tasman and around the Pacific, its CEO **Christopher Luxon** said. He said **Air New Zealand** was confident it would grow its present 50 percent market share on the route to Australia. "We've been doing very well on the Tasman, against our competitors and these new planes give us a few more options," he said. The latest A320-ceo will be delivered in 2016. The first A321neo is due in late 2017 with the rest delivered at intervals through until 2019.

Israil, Israel, purchased its fourth A320-200ceo. It has two in service and the latest one will be delivered in May 2016. The transaction was

valued at \$45 million after discounts, according to Israel's *Globe* newspaper. The airline is talking with **El Al Israel Airlines** about a merger between the flag carrier's **Sun d'Or International Airlines** charter subsidiary. The new entity is expected to operate as a low cost carrier.

Airbus Orders, Deliveries and Backlog May 2015

MAY ORD	MAY DEL	MAY CANX	TOTAL ORD	TOTAL DEL	BACK LOG
A318					
-0-	-0-	-0-	80	80	-0-
A319					
-0-	3	-0-	1,474	1,445	29
A319neo					
-0-	-0-	-0-	49	-0-	49
A320					
5	25	-2	4,747	3,967	780
A320neo					
3	-0-	-0-	2,937	-0-	2,937
A321					
10	9	-0-	1,606	1,089	517
A321neo					
-0-	-0-	-0-	811	-0-	811
A330					
-0-	6	-0-	1,357	1,189	168
A330neo					
-0-	-0-	-0-	145	-0-	145
A350					
-0-	1	-0-	780	3	777
A380					
-0-	3	-0-	317	162	155
This Month			This Year		BL
18	47	-2	225	243	6,368

Airbus sold 15,496 aircraft and delivered 9,128 as of May 31, 2015. Twenty-two orders were cancelled. Total orders, deliveries and backlog include cancellations and order changes.

June 2015

Page 5 of 39

BOC Aviation, the Singapore-based global aircraft leasing company, bought its 154th A320ceo in May. The lessor ordered **IAE V2500** engines for 14 A320 Family aircraft in June, which may have included this most recent order. The company has taken delivery of 128 A320s to date.

At the 51st International Paris Air Show, Airbus Group stated it won orders and commitments for 421 aircraft, worth \$57 billion. The deals comprised firm orders for 124 aircraft worth \$16.3 billion and commitments for 297 aircraft worth \$40.7 billion.

Peach Aviation placed its first ever direct order with **Airbus** for three A320-200s during **Paris Air Show 2015**. The aircraft will feature 180 seats in a single-class layout and will be powered by **CFM International** CFM56 engines. The budget unit of **ANA-All Nippon Airlines** operates 14 leased A320-200s on flights throughout Japan as well as to Hong Kong, South Korea, and Taiwan. Another three A320s will be delivered on lease shortly. **Peach** started operating A320s in March 2012, when it launched services from **Kansai International Airport**, Osaka, Japan.

Airbus A320 Family Aircraft Production in the U.S. is scheduled to begin this summer. The large aircraft components for the first A321 departed from Hamburg, Germany, in late May, bound for Mobile, Alabama. The major component assemblies (MCAs) consist of the wings - produced in the U.K., the rear fuselage section - built in Germany including the Spanish-made tail cone, and the forward fuselage section, including the cockpit, which were manufactured in France. All the components contain parts from all over the world. The Spanish horizontal and German vertical stabilizers were also on board. The sea voyage took approximately 10 days and production will begin in a few weeks. The first aircraft to be built is an A321ceo destined for **JetBlue** in 2016. **Airbus** established the **Airbus U.S. Manufacturing Facility** in Mobile to assemble and deliver A319, A320 and A321 aircraft to meet the growing needs of its customers in the United States and elsewhere in the Americas. It is the company's first U.S.-based production facility, and the fourth in the network which includes Toulouse, France; Hamburg, Germany, and Tianjin, China.

Alpha Star became the ACJ319neo launch customer when it placed a firm order at **Paris Air Show 2015**. The Saudi Arabian company currently owns, manages and operates an extensive fleet of **Airbus** corporate jets comprising ACJ318s, ACJ319s, ACJ320s, an ACJ330, an ACJ340, as well as several **ATR** turboprops. **Alpha Star's** commitment for the ACJ319neo, helps consolidate its role as the largest VVIP charter operator in the Middle East. The delivery is planned for the second quarter of 2019 and the company will make its selection of engines and cabin definition later. **Airbus'** new ACJ319neo can fly eight passengers up to 6,750nm/12,500km, or for more than 15 hours. The plane features new efficient engines, wingtip-mounted Sharklets, improved cabin-comfort and upgraded fuel and baggage capacity.

VietJet Air, Vietnam's first privately-owned carrier, ordered six additional A321s at the **Paris Air Show**. The airline launched operations at the end of 2011, and now operates 22 A320s and one A321on a network covering Vietnam and a growing number of destinations across Asia. Including this newest purchase, the carrier has ordered 14 A320ceos, 42 A320neos and 13 A321ceos from **Airbus**, it also holds purchase rights for another 30 aircraft. **VietJet Air** plans to lease 31 A320 Family aircraft as well. **Madam Nguyen Thi Phuong Thao**, **VietJet Air** President and CEO, said, "Since we took delivery of our first A321 in March this year, we have benefitted strongly from the additional capacity offered by the aircraft and its low operating costs. We are therefore placing this additional order for the A321 to meet demand on some of our most popular routes."

June 2015

Page 6 of 39

Atlantic Airways, based in the Faroe Islands, signed a firm order for one new A320ceo, in June, becoming a new A320 customer. The aircraft will be delivered at the end of 2016 and it will allow the carrier to tap into the growing passenger market between the Faroes and Copenhagen. The A320 will seat 168 people and the airline already operates three **Airbus** A319s. The A320 can operate in challenging environmental conditions. The aircraft has **Required Navigation Performance (RNP 0.1)** capability built-in, which enables the aircraft to fly precisely along pre-defined routes using state-of-the-art on-board navigation systems. **Atlantic** was the first airline in Europe to use the RNP approach.

Saudi Arabian Airlines, the country's flag carrier, was the launch customer for the new **Airbus** A330-300 Regional. The widebodies will join its existing fleet of 12 A330-300s, 35 A320-200s and 15 A321-200s. Passenger demand in Saudi Arabia is growing rapidly on domestic and regional routes. "The new A330-300 Regional variant is specially designed for regional and domestic operations, and is **Airbus'** solution for markets with large populations and fast growing, concentrated air traffic flows" the manufacturer said. Director General **Saleh bin Nasser Al-Jasser** said, "The A330-300 Regional's unique flexibility, high capacity and operational capabilities will enable us to expand our domestic and regional network and better absorb growing passenger traffic." "The A330-300 Regional is optimized to seat up to 400 passengers on missions up to 3,000 nm and offers significant cost savings through a reduced operational weight of around 200 tons. The reduction in fuel burn per seat and maintenance costs will result in an overall cost reduction by up to 26 percent compared with the today's long-range A330-300. In addition, the A330 Regional benefits from the latest A350 XWB and A380 technologies," **Airbus** said. **Saudi Arabian Airlines** also ordered 30 more A320ceos at the **Paris Air Show 2015**. The A330s were valued at \$5.0 billion and the A320s were list priced at \$3.0 billion. The A330 Regionals will be leased from **IAFC-International AirFinance Corporation**. **IAFC** was founded in June 2014 as sharia compliant aircraft leasing fund with **Airbus** and the **Islamic Development Bank (IDB)** as anchor investors and strategic partners. The delivery dates for the A330s and A320s were not announced.

An Un-Named Asian Airline signed a Memorandum of Understanding for the purchase of 60 A320neo Family aircraft at the **Paris Air Show**. "**Airbus** welcomes this latest commitment for the A320neo Family from a customer in the fast-growing Asia region," said **John Leahy**, **Airbus** Chief Operating Officer—Customers. "The NEO offers airlines a unique combination of unbeatable economics and outstanding cabin comfort. It's no wonder the A320neo Family is clearly recognized as the industry benchmark in the single aisle segment." The A320neo Family has won nearly 4,000 orders from 73 customers since its launch in 2010, and has captured almost 60 percent of the market. To date, **Airbus** has sold more than 11,700 A320 Family aircraft and delivered more than 6,500 of them to more than 300 operators worldwide.

GE Capital Aviation Services (GECAS) announced a firm order for 60 A320neo Family aircraft at the **Paris Air Show 2015**. All of the aircraft will be powered by **CFM International's** LEAP-1A engines. This new \$6.4 billion order doubled **GECAS'** A320neo orders to 120. The lessor has now purchased 465 A320 Family aircraft. No delivery date has been given for the jets. **Airbus** let on that its A320 Family production lines are sold out until 2020.

Wizz Air, the largest low cost carrier (LCC) serving Eastern and Central Europe (CEE), signed a Memorandum of Understanding (MOU) for 110 A321neo aircraft, worth \$12.5 billion at list prices. This will be the biggest single order for the A321neo when it is confirmed. The deal pushes NEO orders and commitments beyond the 4,000 milestone. The A321neos will be delivered in **Airbus'** new Cabin Flex configuration with 239 seats which are 18 inches wide. The MOU allows the Hungarian LCC purchase rights for an additional 90 A321neos with the option to substitute a number of the A321neos for A320neo, depending on airline's future requirements. Deliveries begin in 2019 and end in 2024. The new aircraft will replace current A320ceo aircraft as they come off lease, and some of the planes will provide additional capacity for the airline's future growth. **Wizz Air** currently operates 61 aircraft on 380 routes from 22 bases. CEO **József Váradi**, said, "We have an exciting and compelling growth opportunity in Central and Eastern Europe where GDP growth rates significantly exceed that of more mature Western European markets, and the propensity for air travel is growing. Our order for 110 A321neo aircraft will provide the platform to sustain our disciplined expansion over the longer term, enable us to continue to offer low fares to customers across CEE and beyond and drive strong growth well into the next decade." The agreement allows **Wizz Air** to cancel 10 of its 24 A320ceos that were scheduled for delivery in 2018. The airline has taken delivery of 61 A320ceos and also has 27 high-density, 230-seat A321ceos on order that will begin arriving in November. Deliveries will continue through mid-2018. Confirmation of the order will be subject to final approval by **Wizz Air's** Board of Directors, and shareholders. No engine selection has been made between the **CFM LEAP-1A** and **Pratt & Whitney PW1100** geared turbofan.

Synergy Aerospace Corporation, **Avianca's** largest shareholder and owner of **Avianca Brasil**, signed a Memorandum of Understanding (MoU) to buy 62 A320neo Family aircraft. **Avianca Brasil** will base its fleet renewal and network growth on the single-aisle NEO. Chairman of Synergy, **German Efromovich**, said, "These 62 A320neo aircraft will make it possible for **Avianca Brasil** to take an important leap toward growing and modernizing its fleet, while improving passenger experience." The airline currently operates 15 A318-100s, four A319-100s, 19 A320-200s, one A330-200(F), and nine Fokker 100s. **Synergy** had previously ordered 20 A320ceos, six A330-200s, two A330-200 Freighters and 10 A350 XWBs. Once the order is confirmed, **Airbus** will have sold 407 A320neo aircraft to seven customers in Latin America – **Avianca, Azul, Interjet, LATAM, Synergy, Viva-Aerobus** and **Volaris**. The manufacturer has sold more than 950 aircraft in the region and has a backlog of almost 500. Airlines operate nearly 600 **Airbus** aircraft throughout Latin America and the Caribbean. In the past 10 years, **Airbus** has tripled its in-service fleet while delivering more than 60 percent of all aircraft operating in the region. In May, **Airbus** celebrated its 500th aircraft delivery in Latin America.

Air Lease Corporation announced a firm order for one A350-900, one A321ceo and three A320ceos at **Paris Air Show**. **ALC's** portfolio of **Airbus** aircraft stands at a total of 262, including 15 A330ceos, 25 A330neos, 21 A350-900s, five A350-1000s, and 196 are single-aisles, consisting of 30 A320ceos, 31 A320neos, 26 A321ceos, and 109 A321neos. **Air Lease Corporation's** Chairman and Chief Executive Officer, **Steven F. Udvar-Házy**, said, "In a market that is continually growing and developing, **ALC** is fully focused on offering its customers the most modern, technologically advanced and economically efficient aircraft, which certainly includes the A320 Family and A350 XWB." **ALC** helped launch the A330neo and the A321neoLR.

June 2015

Page 8 of 39

EVA Air, Taiwan, signed a Memorandum of Understanding (MOU) for the purchase of four additional A330-300s. The new aircraft will be powered by **General Electric** CF6-80 engines, like its 11 A330-200s and three -300 sister ships. They fly on routes throughout South East Asia, as well as to Australia and Europe. **EVA Air** also operates 15 A321s.

Garuda Indonesia signed a Letter of Intent (LOI) to buy 30 A350 XWB aircraft. The flag carrier plans to use the A350 XWB to develop its medium and long-haul network, with an aircraft that can fly non-stop from Jakarta or Bali to Europe. CEO **Arif Wibowo**, said, "Following our success in revitalizing our regional operation in Asia and the Pacific, the development of our long-haul network will be a priority in the coming years." The A350 XWB has sold well in the Asia-Pacific region, where airlines have ordered a total of 244 aircraft, accounting for nearly one third of the 780 orders. **Garuda Indonesia** operates 11 A330-200s and 11 -300s, as well as 80 737s, two 747-400s and seven 777-300ERs.

Airbus to Build 60 A320 Family Aircraft Per Month? Chief Operating Officer—Customers **John Leahy**, said the airframer is committed to raise output to 50 per month, and he thinks production rates in excess of 60 are "justified" by the backlog of A320neos (approximately 4,000 to date). COO **Tom Williams** suggested that 2018 would be a "sensible time" for the production boost. "If we're going to go to rate 60 we'd have to go progressively," he said. Up until now, **Airbus** has been careful on pacing. The A320neo will be well into its production cycle by this date. He indicated that the engine manufacturers, **CFM International** and **Pratt & Whitney**, will have to cope with a similar production increase of their new technology LEAP-1A and PW1100G power-plants. "We have to make sure the engine guys can match those rates. They have the biggest technical challenge to deal with," he said. The second- and third-tier suppliers will also have to produce sufficient simple components. Mr. **Williams** said, "You often find problems in areas you didn't expect."

Korean Air signed a Memorandum of Understanding (MOU) to acquire up to 50 A321neo aircraft, and became a new customer for the A320 Family. The agreement consisted of 30 orders and 20 options. The A321s will serve on longer regional routes to South East Asia. **Airbus** said the aircraft will be fitted with premium amenities, including wider seats in two classes and the latest in-flight entertainment and connectivity systems. The airline also signed a further MOU with **Pratt & Whitney** for its PurePower PW1100G-JM engines to power the A321neo aircraft. **Korean Air** was the first **Airbus** customer outside Europe to buy the A300. It placed its first order in 1974. Since that time it bought 27 A330s, and the 10 A380s are the flagship of the airline's long-haul fleet. **Korean Air** operates 152 aircraft including 23 737NGs and 14 777-300ERs.

With the Sale of 20 A330 Regionals to Saudi Arabian Airlines, **Airbus** is now confident that it will maintain A330 production at six aircraft per month. It may even raise the monthly rate because the cut may have been premature. **Airbus** sold 24 A330s at **Paris Air Show**, and after the show, **China Aviation Supplies Holding Company (CAS)** signed a General Terms Agreement (GTA) for 45 A330 Family aircraft and a Memorandum of Understanding (MOU) covering 30 A330 options. The GTA and MOU were signed on June 30 in Paris by **Fabrice Brégier**, **Airbus** President and CEO, and **Li Hai**, President and CEO of **CAS**, in the presence of visiting Chinese Premier **Li Keqiang** and French Prime Minister **Manuel Valls**. The deal was part of a plan to set up a new A330 cabin-completion center in Tianjin, China. The order was for a mixture of standard A330-300s and A330 Regionals. The A330 Regional is physically identical to the standard model, but the maximum take-off weight is restricted, allowing for less engine wear and a specially adapted engine maintenance package. The A330 Regional

June 2015

Page 9 of 39

sale will guarantee almost a year of production while **Airbus** transitions to the new A330neo in late 2017. The 250-300-seat A330 was one of **Airbus'** most profitable aircraft, but sales had been declining. As of May 31, the backlog was 168 A330ceos and 145 A330neos. This forced **Airbus** to cut production rates to nine per month starting in the fourth quarter of 2015, and to six a month in the following quarter in 2016, while it develops the A330neo. At the planned lower rate, CEO **Fabrice Bregier** said the production line was almost sold out for 2016, and **Airbus** had "just a handful [of A330s] missing" from its backlog to reach its planned targets. "We think we can sustain 'rate six'" and he wondered if **Airbus** had reduced its planned production too much. The airframer has "some flexibility" to adjust its rate, but "you can't move [back up] to 'rate eight' just like that."

Philippine Airlines (PAL) is looking at the **Airbus** A350 XWB for its long-haul operations. The flag carrier currently flies **Boeing** 777s on its long-haul routes, because it retired its last Boeing 747-400 jumbojets in September 2014. **PAL** President, **Jaime Bautista**, told the press that "There will be a need for us to get more long-haul aircraft for expansion to North America, Europe. Of course we will study it very carefully." The airline can afford new airplanes, because **PAL Holdings**, its parent company, earned a 127 million peso (\$3 million) profit in 2014, due to a combination of lower fuel prices and improving market conditions. This was the first profit after three years of losses. **Boeing** is offering the 787 Dreamliner in the medium-sized widebody market, and the upgraded 777X, which will be more fuel efficient and can carry more passengers than the current 777-300ER. **Cebu Air**, the parent of Philippine low-cost carrier **Cebu Pacific Air**, is not interested in the A350 at this time. The airlines CEO, **Lance Gokongwei**, said "The A350 is very ideal for long haul. [But] We don't have any long-haul routes at this point that require this range." **Cebu Pacific** operates 10 A319s and 31 A320s on its short-haul domestic and regional network, and a fleet of six A330s on medium-haul services to the Middle East and Australia.

Airbus Still Marketing A330's Early Delivery Slots as a major draw for the venerable widebody. The **Boeing** 787 is sold out until the end of the decade and **Airbus** still has some A330 slots in the 2017-2018 time period. **Christopher Buckley**, **Airbus's** Executive VP for Europe, Africa, Asia and Pacific, said, "With all the capabilities of today's A330-300 at 242 ton MTOW and the economics it can give people, we've had many of our customers say there's no more efficient more economic long-haul seat in the air today. We'll continue to sell the value extremely hard and we see no immediate need to run in with big discounts." Further, if airlines don't require an aircraft with very-long-range capability, then the A330 is "the right product...and if people are wanting lift in 2017/18 then we certainly do have an advantage right now with availability, and we'll make the most of that." **Airbus** will transition A330 production to the upgraded **Rolls-Royce** Trent 7000-powered A330neo when deliveries begin in 2017. Mr. **Buckley** said, "We still have quite a big market for today's A330s as a tanker and hopefully we'll sell a few more freighters too. So we see the two running in parallel for quite a while – 2020, 21 and beyond."

JetBlue Airways' Executive Vice President for Commercial and Planning, **Marty St. George**, confirmed the airline is looking at the long-range A321neoLR for possible routes to Latin American and Europe. It currently flies domestic, Mexican and Caribbean routes with A320s and A321s. He said, "I think it will work for a lot of places we don't fly right now, and Western Europe is one of them." The new and improved A321neoLR would be easy to introduce in terms of operations and MRO. The A321neoLR was launched in January and will offer a range of 4,000 nm with a 93.5 ton MTOW making it ideal for flights between Europe and the U.S. East Coast among others. In a two-class layout, it will

June 2015

Page 10 of 39

offer 206 seats. Airbus expects it to enter revenue service from 2019 onwards. Both **American** and **United** are looking at the A321neoLR as a replacement for their 20+ year old 757s, when it is ETOPS certified.

Boeing Orders

Boeing Sold 11 Aircraft in May, including the third 787-9 to **TUI Travel PLC**. A **Business Jet / VIP Customer** ordered one VIP 737 MAX 8 BBJ. One **Unidentified Customer** ordered three 737-800s in mid-May. Later in the month, an **Unidentified Customer** ordered two 737-900ERs and another customer ordered four 737 MAX. Four 737NG orders were cancelled. The manufacturer has sold 90 737s, three 747-8Fs, one 767-300F, 25 777s and 45 787s as of May 31, for a total of 164 new orders. It lost 29 existing orders which lowered the net total to 135.

TUI Group finalized an order for one 787-9 Dreamliner and optioned another 787-9 in May. **TUI Group** also substituted two unfilled 787-8 orders for two 787-9s. The firm order is valued at \$257 million at current list prices. The European leisure group will operate a fleet of 13 787-8s this summer, and with today's announcement, will add three 787-9s within the next three years. To date, **Boeing** has delivered more than 165 airplanes to the **TUI Group** airlines; the group has 60 737 MAXs and now two 787-8s and three 787-9s on backlog.

High-Density A320s. **EasyJet** will retrofit up to 105 of its A320 cabins with six additional seats and a lavatory for Persons with Reduced Mobility (PRMs). The new cabin layout will maintain current passenger comfort levels. The new cabin will feature a combination of the recently certified '**Max-Pax**' seating capability and the innovative **Space-Flex V2** which optimizes the cabin space at the rear of the aircraft. The cabin will be provided by the **Airbus** Upgrade Services division. In April 2015, **Airbus** and **easyJet** celebrated the 250th delivery of **Airbus** aircraft including some of the latest technology and innovations available. This significant cabin upgrade program reinforces the airline's commitment to its fleet. The first **Space-Flex V2** aircraft will arrive from the production line in May 2016. Deliveries of the upgrade kits are planned from autumn 2016 to spring 2018. **Spring Airlines** will receive its first high-density 186-seat A320-200 later this year. The airline has 50 A320-200s, and said the added capacity will help further reduce its operating costs thereby allowing it to be more competitive.

In Early June, **Boeing** booked one 747 from an **Unidentified Customer** and one 737 MAX 9 BBJ from a **Business Jet / VIP Customer**. By mid-month, **AerCap** bought 100 737s, **Qatar Airways** ordered 14 777s, **SMBC Aviation Capital** purchased 10 737s, and **Unidentified Customer(s)** committed for 21 737s. The manufacturer identified **Sriwijaya Air** as the purchaser of two 737-900ERs, and **Business Jets / VIP Customer** as the buyer of a 737, and **Ethiopian Airlines** acquired six 787s which were previously listed as unidentified. At the end of the **Paris Air Show**, **Boeing's** sales for 2015 stood at 203 737s, four 747-8s, one 767-300F, 49 777s, and 19 787s for a net total of 276. The manufacturer reported the cancellation of 18 737s and 26 787s during the year. **Aeroflot** reportedly cancelled its 22 787-8 orders in June. **Boeing's** gross orders were 320 so far in 2015.

At Paris Air Show 2015, **Boeing Won Orders Worth \$40.8 billion** at list prices. The highlight for the Seattle plane maker was aircraft lessor **AerCap's** purchase of 100 737 MAX 8s. Last year at **Farnborough**, **AerCap** purchased 50 A320neos. **Volga-Dnepr** committed to buy 20 747-8Fs and **Ethiopian Airlines** revealed its order for six more 787s. **Korean Air** announced its intention to

June 2015

Page 11 of 39

purchase 30 737 MAXs and two additional 777-300ERs. It took options for an additional 20 737 MAX. **Qatar Airways** announced an order for 10 777-8Xs and four 777 Freighters.

Ethiopian Airlines finally signed a firm contract to purchase six 787-8 Dreamliners and the order was attributed to an unidentified customer on the manufacturer's **Orders and Deliveries** website in April. At that time, the national carrier's CEO, **Tewolde Gebremariam**, said his airline wanted to buy between six and eight early model 787-8s from **Boeing**. The airline's current 13 787-8s are fitted with **General Electric** engines while the early model "terrible teens" 787s (five were identified as SN 34487, 34492, 34505, 38464 & 38465) are fitted with **Rolls-Royce** Trents. The 787s are operated on flights throughout Africa, Europe, the Middle East, the Far East, and North and South America. **Ethiopian** was the first African airline to operate the 787. It currently operates an all-**Boeing** fleet of 737, 757, 767, 777, and 787 airplanes in passenger service, and has 737-400F, 757F, 777F and MD-11 airplanes in cargo configuration.

Boeing May 2015 Orders, Deliveries					
MAY ORD	MAY DEL	MAY CANX	TOTAL ORD	TOTAL DEL	BACK LOG
737					
10	37	-4	12,721	8,551	4,170
747					
-0-	1	-0-	1,540	1,508	32
767					
-0-	1	-0-	1,115	1,074	41
777					
-0-	8	-0-	1,852	1,304	548
787					
1	13	-0-	1,105	282	823
This Month			This Year		BL
11	60	-4	135	310	5,614
Boeing sold 25,863 aircraft and delivered 20,249 as of May 31, 2015					
The Current Program includes sales and deliveries of 737s, 747s, 767s, 777s and 787s.					
Sales totals include 29 cancellations.					

AerCap announced its order for 100 737 MAX 8s at the **Paris Air Show**. The order was valued at \$10.7 billion (\$107 million each) at current list prices, and was the first 737 MAX order placed by **AerCap**. CEO **Aengus Kelly**, said, "We see significant market appetite for this aircraft type from our diverse customer base spanning approximately 90 countries around the world." **AerCap** is a global leader in aircraft leasing with 1,800 aircraft that are owned, managed, or under contract to purchase. It serves over 200 customers in more than 90 countries with comprehensive fleet solutions and provides part-out and engine leasing services through its subsidiary, **AeroTurbine**.

Qatar Airways placed an order for 10 777-8Xs and four 777 Freighters, valued at \$4.8 billion at list prices, on the first day of **Paris Air Show 2015**. The flag carrier ordered 50 777-9Xs at **Dubai Airshow** in 2013 and bought a dozen 777Fs between 2006 and January 2015. The airline reserved purchase rights for 50 777-9Xs at **Farnborough Airshow** in 2014. CEO **Akbar Al Baker**, said, "The order for four 777 Freighters underpins the value that this airplane has also brought to our rapidly growing cargo operations." **Boeing** said, "The 777X builds on the passenger-preferred and market-leading 777. The 777X will include new engines, an all-new composite wing and will leverage technologies from the 787

June 2015

Page 12 of 39

Dreamliner.” Design of the 777X is underway and production will begin in 2017, with first delivery targeted for 2020. With this order, the 777X has accumulated 320 orders and commitments from six customers worldwide. At present, **Qatar** operates nine 777-200LRs, 28 777-300ERs, and eight 777Fs.

Ruili Airlines announced at the **Paris Air Show** that the airline had committed to purchase 30 737 MAXs with the financial support of **AVIC International Leasing**. The commitment was valued at \$3.2 billion (\$106.66 million each) at current list prices, and will be subject to the approval of the **Chinese Government**. Once all contingencies are cleared, the order will be posted on **Boeing’s Orders and Deliveries** website. Currently, **Ruili** operates 34 daily flights on 11 scheduled routes with a fleet of four 737-700s and one 737-800. According to its development plan, the start-up carrier will add two more aircraft by the end of this year; it will operate 26 by 2020, and 56 by 2025. **Ruili** received its public air transport enterprise business license from the **Civil Aviation Administration of China (CAAC)** in February 2014, and it is the first private carrier approved by **CAAC** after the regulator relaxed restrictions on new carriers in 2013. In May, the carrier signed an order with **Minsheng Financial Leasing** for 30 737 MAX jets, and a strategic cooperation agreement with **AVIC International Leasing** that covered another 30 of the same type. The deal was mentioned in the May 2015 **AVMARK Newsletter**.

Boeing Will Cut 747 Production to one per month beginning March 2016. The manufacturer currently completes 1.3 airplanes per month. The announcement comes a week after the company said that **Volga Dnepr** would buy 20 747-8Fs at **Paris Air Show**. A **Boeing** representative said, “The market drives our production rate and we adjust accordingly to keep our business running smoothly. The 747-8 is a great airplane; we stand behind its capabilities and believe it serves a unique need in the market. We continue to believe in the long-term strength of the freighter market and the 747-8 is uniquely positioned to capture this demand; of note is the 747-400 freighter replacement market, which begins next decade.” **Boeing** continues to look at a range of investments to both enhance the long-term stability of the 747-8 production line and performance of the aircraft. The company had 31 747-8Is and -8Fs in backlog as of June 30, which will grow to 51 when the **Volga Dnepr** order is finalized. That equals four years production at the new rate, but the **Volga Dnepr** order calls for deliveries over seven years.

Minsheng Financial Leasing (Minsheng) signed a Memorandum of Understanding at the **Paris Air Show** covering the purchase of 10 Next-Generation 737s and 20 737 MAX airplanes. This is the company’s first purchase of **Boeing** airliners although it has ordered approximately 120 business jets. Vice President of **Minsheng for Aviation Unit, Wang Fuhou**, said, “**Minsheng** has enjoyed a successful relationship with **Boeing**. Thanks to the continued emergence of low-cost carriers and regional airlines, the single-aisle market is projected to be the fastest growing and most dynamic segment. The Next-Generation 737 of today and the 737 MAX of the future combine market-leading economics, reliability and comfort to meet requirements from airline customers like **Ruili Airlines**.” **Minsheng** was one of the first five leasing companies approved by **China Bank Regulatory Committee**, and was founded in April 2008 by **China Minsheng Banking Corp**, the largest private commercial bank in China. It became a top-tier leasing company in China and is the leader in the business jet market. In 2013, **Minsheng** entered commercial airplanes, focusing on high-demand aircraft type and the global aviation market. The lessor currently owns more than 30 commercial aircraft which are leased to more than 10 airlines customers across the world.

June 2015

Page 13 of 39

Boeing Business Jets announced the sale of the first BBJ MAX 9 to an undisclosed European customer at the **Paris Air Show**. The BBJ MAX 9 previously booked on the **Orders and Deliveries** website was allocated to an **Unidentified Customer**. **Boeing Business Jets** President **David Longridge** said, "We are thrilled to announce that the BBJ MAX 9 program is officially launched with our first BBJ MAX 9 order." This sale marks the fifth BBJ MAX order; the others are for the BBJ MAX 8 model. A commercial 737 MAX 9 is list priced at \$113.3 million. **Boeing Business Jets** offers a wide variety of ultra-large-cabin, long-range airplanes for the private jet market, including the BBJ and BBJ MAX family as well as the widebody 787, 777, and 747-8 VVIP (Very, Very Important Persons) jets. The BBJ MAX 8 was launched in April 2014. The company currently has 13 737-based BBJs on backlog and 12 VVIP jets to be delivered, including one 747-8, nine 787s and two 777s. A total of 181 BBJs of all types are in service. The jets are delivered without cabin furnishings which are installed at custom completion centers. Here they receive yacht-like interiors costing millions of dollars more.

Boeing Started Building the First 737 MAX on schedule. In June, employees started to assemble the wings for the first 737 MAX flight test airplane. Operators loaded 737 MAX wing skin panels and stringers into the new panel assembly line that uses automation to drill holes and install fasteners in the upper and lower wing panels. Mechanics also loaded the initial parts of the first 737 MAX spars – internal support structures in wings – into automated spar assembly machines. The unfinished skins, stringers and spars were machined by **Boeing Fabrication Skin and Spar** in Auburn and Fredrickson, Washington. When finished, the panels and spars will be transformed into completed wings **Boeing** said. The wings will be attached to the first 737 MAX fuselage on the new Central line in **Renton Final Assembly** later this year. The new production line will allow the team to isolate the first 737 MAX build from the rest of production in order to learn and perfect the build process while the **Renton** factory continues to build 737NGs at a rate of 42 airplanes a month.

SMBC Aviation Capital, Japan, ordered 10 737 MAX 8s at the **Paris Air Show**. This deal adds to a 2014 order for 80 737 MAX 8s for a total of 90. CEO **Peter Barrett** said, "Last year we placed the largest ever single order of 737 MAXs by a lessor, and we are pleased to be adding further to that tally today." **SMBC** has 110 **Airbus A320neos** on order, as well as seven A320ceos, five A321ceos and seven 737-800s. **SMBC Aviation Capital** has a modern fleet of over 370 owned and managed aircraft valued at more than \$10.5 billion, which includes 180 **Boeing** airplanes. The leasing company has 95 airline customers and over 42 investors in more than 40 countries around the world.

EVA Airways announced at the **Paris Air Show** that it intends to purchase five 777 Freighters valued at more than \$1.5 billion (\$300 million each) at list prices. These will be the first 777 Freighters to join **EVA's** fleet and the order will be posted to Boeing's **Orders and Deliveries** website once finalized. The Taiwanese airline will use the new freighters to bolster its fleet in an effort to meet growing demand in the air cargo market. **EVA Airways** currently operates 20 777-300ERs, three 747-400s and nine 747-400Fs. **EVA** is one of the world's leading 777-300ER operators with unfilled orders for 14 777-300ERs, to be acquired from **Boeing** or leasing companies. The carrier plans to grow its twin-aisle fleet to more than 60 airplanes by the end of 2025. The airline's Chairman **Kuo Wei Chang** said earlier in the year that it could order at least 10 787-10s and an undisclosed number of 777Xs during its fleet renewal program. According to the **Boeing World Air Cargo Forecast**, global air freight traffic is expected to grow at an annual rate of 4.7 percent, doubling the cargo traffic over the next 20 years, which is good for

June 2015

Page 14 of 39

Boeing freighter sales, as evidenced by **Volga Dnepr's** interest in 747-8Fs. **Boeing** currently holds 90 percent of the new freighter market with a backlog of 14 747-8Fs, 37 767-300Fs and 46 777Fs.

Garuda Indonesia signed a Memorandum of Understanding to purchase 30 787-9 Dreamliners, as well as up to 30 737 MAX 8 airplanes, as part of its revitalization program. **Boeing** said it will work with **Garuda Indonesia** to finalize the order, and then post it to the **Orders and Deliveries** website. "The agreement is part of **Garuda Indonesia's** revitalization program to support the airline's future plan to further expand its network globally. The 787 Dreamliner and 737 MAX are extraordinary airplanes with exceptional economics that will keep us competitive and bring a new level of service excellence for our customers," said **Arif Wibowo**, **Garuda Indonesia's** President and CEO. The flag carrier reconfirmed its intent to purchase 50 737 MAX 8s. That order was placed in September 2014. The airline currently operates 80 Classic and Next Generation 737s, two 747-400s, and seven 777-300ERs. It flies to 76 cities from the Indonesian archipelago.

Korean Air signed a Memorandum of Understanding to purchase 30 737 MAXs and two additional 777-300ERs, and to option 20 737 MAXs. The agreement was valued at approximately \$3.9 billion at current list prices. The order will be posted on the **Orders and Deliveries** website when it is confirmed. **Korean Air** can substitute the MAX 8s with MAX 9s. When the order is finalized, the flag carrier will become the newest 737 MAX customer. **Korean** will have 69 airplanes in backlog. The airline ordered five 777 Freighters earlier this year. **Korean Air** currently operates a fleet of 87 737, 747 and 777 airplanes. The airline also operates a cargo fleet of 27 747-400, 747-8 and 777 Freighters. **Korean Air's Aerospace Division** supplies the distinctive raked wing-tips for the 747-8s and 777s. The company will be one of two suppliers that produce the new 737 MAX Advanced Technology (AT) Winglet.

Sriwijaya Air announced its order for two Next-Generation 737-900ER (Extended Range) airplanes during a signing ceremony at the **Paris Air Show**. The order was placed in May and attributed to an unidentified customer on the **Orders and Deliveries** website. This was first new airplane purchase for

Volga-Dnepr Group, a world leader in transportation of unique, oversize and heavy cargo, have signed a Memorandum of Understanding to purchase 20 additional 747-8 Freighters, valued at \$7.4 billion (\$370 million) at list prices. The airplanes will be delivered to the Group's scheduled service subsidiary, **AirBridge Cargo Airlines (ABC)**. **Volga-Dnepr Group** was the first to order the **Boeing** 747-8 Freighter in Russia and took delivery of its first 747-8F in 2012. These additional 20 airplanes will be acquired through a mix of direct purchases and leases over the next seven years. The agreement also adds the **Antonov-124-100** aircraft to the long-term logistics support from **Boeing** and its partners, the manufacturer said. The two companies have a long history of successful partnership, and **Volga-Dnepr** has already supported **Boeing** in a number of shipments. The unique technical abilities of the Antonov 124-100, along with **Volga-Dnepr's** 25 years of global operations and experience gained in transportation of aviation equipment, will further serve **Boeing's** logistical needs. **Volga Dnepr** currently operates 10 **Antonov** An-124-100 and five **Ilyushin** IL-76TD-90VDs, all modified under the **Group's** special upgrade program and capable of flying to any point of the world. The **AirBridge Cargo Airlines'** fleet also includes five **Boeing** 747-400ERFs (Extended Range Freighters), three 747-400 Freighters, six 747-8 Freighters, and three 737-400Fs. **Volga-Dnepr Group** was founded in 1990 and represented the Russian airfreight industry in the international market since 1990.

June 2015

Page 15 of 39

the Indonesian airline and included a letter of intent for options for up to 20 additional 737 airplanes. **Sriwijaya Air** is based in Jakarta, Indonesia, and is the country's third largest carrier. It operates an all-**Boeing** fleet of 10 737-300s, five -400s, 15 -500s and seven 737-800s. The airline offers flights to various Indonesian destinations as well as to Dili, East Timor and Penang, Malaysia. It was founded in 2003. **Aergo** signed a 12-year sale and lease back deal covering the two 737-900ERs when they are delivered in August 2015.

Enter Air, Poland, announced its order for two 737-800s and two 737 MAX 8s. The airplanes are worth more than \$400 million at current list prices, and this was their first direct order for **Boeing** from the Polish charter carrier. In less than five years **Todd Nelp**, VP of European Sales, said **Enter Air** has grown to be a major player in the Central and Eastern European holiday market,. The Warsaw-based carrier serves more than 70 holiday destinations across Africa, Asia, the Mediterranean, and the Middle East with eight 737-400s and nine 737-800s.

China's COMAC won commitments for an additional 57 C919 narrowbodies, raising the total past the 500 mark. Additionally, **COMAC** sold seven more ARJ21 regional jets. At the **Paris Air Show**, **Ping An Leasing** signed a Letter of Intent for 50 C919s, and became one of **COMAC** largest customers. The Shanghai-based Chinese lessor was founded in 2012, and tried to buy **AWAS's** 100-aircraft portfolio last year. Chinese investor **Puren Group** signed a commitment for seven C919s and seven ARJ21s, at **Paris**. The aircraft will be used to launch **Puren Airlines**, based at **Lubeck Airport**, Germany. The group bought the airport and plans to start **Puren Airlines** in order to develop connections from that gateway. The company has applied for an air operator's certificate. The new deals raised the C919 commitments to 507, and ARJ21 sales to 315. The C919 prototype is scheduled to roll out in September, and the first flight of the aircraft was pushed to 2016.

Shenzhen Airlines said it ordered 46 **Boeing** 737s worth \$4.3 billion (\$93.5 million each). The new planes will be delivered between 2016 and 2020, and will increase **Shenzhen's** capacity by 6 percent. The board of its parent company, **Air China**, said in May that **Shenzhen** would purchase the 737s. **Boeing** has not listed the order on its **Orders and Deliveries** website.

Regional Report

Bombardier debuted both CSeries variants at **Paris Air Show**. It flew the CS300 test aircraft (FTV-7), while the CS100 with a completed interior (FTV-5) was on static display. The manufacturer did not sign any new orders for the CSeries and has not won a new commitment since September 2014. Sales are stuck at 243, 20 percent short of the goal of 300 orders by the time of first delivery. **Bombardier** has proposed the even larger CS500 which would carry more than 160 passengers. Several buyers for a larger plane have expressed interest. VP for the CSeries, **Rob Dewar**, said, "It's a possibility, yes. The platform has the capability to be a larger aircraft... We get demand for a larger aircraft, but we give them exactly the same response, we're focused on the CS100 and 300." The program is more than two years late and \$2 billion over budget, so to have **Bombardier** launch a stretched CSeries seems premature. The press had reported on **Bombardier's** woes and wondered how long the company's rail car business will subsidize the aerospace unit. On the bright side, **Bombardier** announced that its CSeries aircraft have exceeded their original targets for fuel burn, payload, range and airfield performance, based on flight tests results. The CSeries aircraft are also on track to meet noise performance targets, making them the quietest commercial jets in production, the company said.

June 2015

Page 16 of 39

The CSeries aircraft's maximum range at 3,300 nm, is approximately 350 nm more than originally targeted. The aircraft is delivering more than a 20 percent fuel burn advantage compared to the contemporary A320 and 737NG, and it is expected to be 10 percent more fuel efficient than the NEO or MAX. The CSeries aircraft's community noise level is nearly 20 EPNdB below the **Federal Aviation Administration's** Stage 4 limit, making it ideal for city center operations, the company said.

Air Baltic will be the launch operator for the **Bombardier** CS300 and it expects its first delivery in September 2016. Another two CS300s will arrive before the end of that year. **Air Baltic** will firm up seven options to give it 20 firm CS300 orders. The CS300 is on track to be certificated six months after the CS100, which is due by the end of this year, **Bombardier** said. **Air Baltic** has selected a single-class high-density layout with 148 seats for its CS300s. The standard two-class configuration seats 135 passengers, compared with 110 seats for the CS100 model.

SkyWest Airlines announced at the **51st International Paris Air Show**, that it placed a firm order for eight **Embraer** E175 jets. The aircraft will be flown for **Alaska Airlines** by **SkyWest** under a **Capacity Purchase Agreement (CPA)**. The contract was list priced at \$355 million (\$44.375 million each) and the sale will be included in **Embraer's** second-quarter 2015 backlog report. In November 2014, **Alaska** and **SkyWest** signed a **CPA** for seven E175s and optioned another eight. The first of the seven airplanes will enter service in **Alaska** livery in July. The batch of eight new aircraft were part of **SkyWest's** order for 100 (40 firm and 60 reconfirmable) E175s placed in May 2013. The contract included 100 options. This reconfirmation raised **SkyWest's** total firm orders to 55 aircraft. **Alaska's** E175s will be fitted with 64 tourist and 12 First Class seats and the newest batch will be delivered in 2016. The E175s will replace eight 70-seat **Bombardier** CRJ700s over the next 15 months on a tail-for-tail basis. **SkyWest** is the largest regional airline group in the world and is the parent company of **SkyWest Airlines** and **ExpressJet Airlines**. Both companies have long histories with **Embraer**. In a separate deal announced in June of 2013, **SkyWest** became the launch customer for the E175-E2, and ordered 100 aircraft with 100 additional options. Deliveries begin in 2020.

Bombardier Commercial Aircraft released its annual 20-year market forecast. Replacement demand in the established markets of Europe and North America, and growth in emerging markets, China and South Asia, are forecasted to drive an increase in deliveries. Operators will focus on finding more efficient aircraft in the face of volatile fuel prices and mounting environmental concerns. The company sees demand for 12,700 aircraft deliveries in the 60- to 150-seat segment that will be valued at \$650 billion. The 60- to 100-seat segment will be one of the most dynamic in commercial aviation. The fleet will more than double in size and generate demand for 5,700 new aircraft. Deliveries will be split roughly equally between regional jets and turboprops, with lower forecasted fuel prices favoring the regional jet share. The 100- to 150-seat segment will see a major fleet transformation with the entry-into-service of new clean-sheet aircraft designs. This segment is expected to generate 7,000 aircraft deliveries from 2015 to 2034. North America is expected to be the leader in 60- to 150-seat deliveries with a forecasted 3,600 new aircraft, followed by Greater China with 2,450, Europe with 2,100, Latin America with 1,150, Asia Pacific with 1,100, South Asia with 700, the Commonwealth of Independent States (CIS) with 600, Africa with 550, and the Middle East with 450.

Colorful Guizhou Airlines (Duocai Guizhou) placed a firm order for seven E190s and took 10 options. The first aircraft is scheduled for delivery later this year. The airline is a joint-venture between **Guizhou**

Industrial Investment Group (90 percent) and **Weining County Construction Investment Group** (10 percent) and it is the first locally-owned airline in China's Guizhou Province. It is capitalized with 1 billion yuan (\$160 million) and intends to be a "combination of regional airline and low cost trunk carrier." **Duocai Guizhou** applied for an **Air Operator Certificate (AOC)** with the **Civil Aviation Administration of China (CAAC)**. Once licensed, it will offer scheduled domestic passenger flights from its hub at Guiyang, China, to neighboring cities and provinces. The airline intends to operate 30 aircraft by 2020, and between 120 and 140 in the more distant future. The sale was announced at the **51st International Paris Air Show** and was valued at \$834 million (\$49 million each) at current list prices if all options are exercised. The sale will be recorded in the second quarter. **Colorful Guizhou Airlines** is **Embraer's** fifth E-Jet customer in China and the first in the south-west of the country. **Embraer** claims 80 percent market share in the regional jet segment in China.

United Airlines announced at the **51st International Paris Air Show** that it would add 10 additional E175 jets to the **United Express** fleet. The deal was valued at \$444 million (\$44.4 million each) based on current list prices, and will be included in **Embraer's** second-quarter backlog. **Embraer** expects **United** will convert options for 18 aircraft to firm orders in the near term. The first of these aircraft is expected to be delivered in 2016. The **United Express' E175s** are configured in a dual class 76-seat layout and the carrier exclusively operates E175s in this aircraft in the 75-seat category. **United Airlines** ordered its first 30 E175s in April 2013. The E175 will be used to primarily to replace older, less efficient 50-seat regional jets.

Aircastle ordered 15 E190-E2s and 10 E195-E2s and took purchase rights for 15 E190-E2s and 10 E195-E2s at the **Paris Air Show**. The potential order for 50 aircraft will be recorded in the second-quarter. **Aircastle's** E190-E2 deliveries will begin in 2018 and in 2019 for the E195-E. Seven units per year will be delivered through 2021. The new order brings the E-Jets E2 backlog to 267 firm orders plus 373 options and purchase rights. The first E-Jet E2 (an E190-E2) will be delivered in the first quarter of 2018. The E195-E2 is scheduled to enter service in 2019 and the E175-E2 in 2020. The E2s will be powered by **Pratt & Whitney** PurePower Geared Turbofan high by-pass ratio engines (PW1700G on the E175-E2, and the PW1900G on the E190-E2 and E195-E2). Combined with new aerodynamically

Embraer Released its 2015-2034 Market Outlook which forecasted the delivery of 6,350 jets - 2,250 units in the 70- to 90-seat segment and 4,100 units in the 90- to 130-seat segment over the next 20 years. The 70- to 130-seat jet fleet will increase from 2,590 aircraft in 2014 to 6,490 by 2034, and will be the fastest growing of all aircraft seat segments. Replacement of ageing aircraft will represent 39 percent of new deliveries and 61 percent will be used to accommodate market growth. Worldwide demand for air transport, measured by revenue passenger kilometers (RPK), will increase 2.6 fold at an average of 4.9 percent annually through 2034. China and the Middle East will be the fastest-growing markets with an average annual RPK growth rate of around 7.0 percent, followed by the emerging regions of Latin America with 5.9 percent, Africa with 5.4 percent, Asia Pacific and the Commonwealth of Independent States (CIS) with around 5.0 percent, and the mature markets of Europe and North America with 3.9 percent and 2.7 percent, respectively. The most mature markets will receive the most aircraft, 2,060 to North America (32 percent) and 1,160 to Europe (18 percent). China will accept 1,020 airplanes (16 percent), Latin America will get 720 aircraft (11 percent) and the four other markets will acquire 550 or fewer planes each representing less than 10 percent.

June 2015

Page 18 of 39

advanced wings, full fly-by-wire flight controls, and improvements to other systems, the E2s will deliver significant reductions in fuel burn, maintenance costs, emissions, and external noise, **Embraer** said.

Two Years After Launching the E-Jets E2 Family at the **50th International Paris Air Show**, **Embraer** began to assemble the first E190-E2 at the company's factory in São José dos Campos. **Embraer** has already received the first sub-assemblies from suppliers in several countries and the assembly of the first prototype is moving forward as planned. At **Embraer's** Évora, Portugal, plant, the first wing and central fuselage sub-assemblies were completed. In Spain, **Aernnova AERO-SPACE S.A.** is finishing the assembly of the vertical empennage, and the company will also supply the horizontal empennage. In the Czech Republic, **Latecoere** finished the baggage doors and sent them to Brazil. U.S.-based **Triumph Aerostructures** is responsible for the rudder and elevator, and it is assembling section three and the aft of the fuselage. At the Botucatu plant in Brazil, **Embraer** has already produced a series of components for the wings, central fuselage one and two, besides finishing the forward fuselage; this segment is in the final assembly stage in São José dos Campos. All of these structures will be highly automated in the manufacturing stages. **Embraer's** subsidiary **Eleb**, will supply the E-Jet-E2s' landing gear.

Sukhoi Civil Aircraft Company and Yakutia Airlines signed a contract at the **International Paris Air Show 2015**, for the delivery of three additional Sukhoi Superjet 100 aircraft starting from 2017. The SSJ100 Long Range versions will be fitted with eight business class and 85 economy seats. **Yakutia** has been operating two SSJ100s on domestic and international routes since early 2013. **Ilya Tarasenko**, President of **Sukhoi Civil Aircraft Company**, said, "Entry into service of three more SSJ100 aircraft will allow the company not only to upgrade the fleet and expand the route network, but also to reduce the financial risks related to lease payments guarantee due to a fixed rate in Russian roubles." **Yakutia Airlines'** two Sukhoi Superjet 100 aircraft have reached more than 8,000 flight hours and they now serve more than 15 cities worldwide, in the Far East and Southern Russia, Siberia, Ural, and also to China, Japan and South Korea.

328 Support Services GmbH, the Type Certificate holder for the **Dornier 328**, announced that its parent company, **Sierra Nevada Corporation (SNC)**, has signed a Memorandum of Understanding with the Turkish **Ministry of Transport, Maritime Affairs & Communications** to produce the country's first regional jet as part of its **Regional Aircraft Project**. The first aircraft is expected to be delivered in 2018. They will build a modernized version of the venerable 328 and 328JET which were produced from 1991 to 2002. **Sierra Nevada** acquired all intellectual property rights when the company bought **328 Support Services** in Germany. **SNC** Chief Executive Officer **Fatih Ozmen**, said, "The aircraft will be the first domestically-built passenger aircraft in Turkey." They will design a new high-tech version, dubbed the 628 aircraft series simultaneously with production of the 328 series. The joint effort will establish a world-class aerospace industry infrastructure in Turkey, and it will sell a new 30-seat regional aircraft in the global aviation market, **SNC** said. **Sierra Nevada** will collaborate with **Savunma Teknolojileri Mühendislik ve Ticaret A. (STM)**, which will be responsible for upgrading the existing 328 and 328JET and manufacturing the aircraft, marketed as the turboprop T328 and the jet TRJ328.

ATR Announced 46 Firm Orders and 35 Options at Paris Air Show, worth \$1.98 billion at list prices. The contract signed with **Japan Airlines** opened a new market for **ATR** and boosted firm orders to 1,500. **Unidentified Customers** ordered two ATR 72-600s.

Japan Airlines (JAL) bought the first **ATR** aircraft to be operated in Japan. **ATR** sees the potential to replace 109 aging turboprops, which average 14-years old. **JAL** ordered eight firm **ATR 42-600s**, plus took one option and 14 purchase rights. The deal was valued at \$496 million (\$21.56 million each). The aircraft will be operated by **Japan Air Commuter (JAC)**, the national airline's regional subsidiary. Operations with the new 50-seat **ATR 42-600s** will start in 2017 and the last aircraft will be delivered in 2020. With its brand new fleet, **Japan Air Commuter** will replace its current regional fleet of 11 **Saab 340s** and perhaps some of its 11 **Bombardier Dash 8-400s**. It will operate **ATRs** on its main routes as well as to smaller islands of the country. The state-of-the-art **ATR 42-600 turboprop** is equipped with a glass cockpit which incorporates the newest navigation technologies, and is equipped with the new **Armonia** cabin.

Cebu Pacific Air, the Philippines, ordered 16 **ATR 72-600s**, and optioned an additional 10 **ATR 72-600s**. The total aircraft order was valued at \$673 million (\$25.88 million each), based on current list prices. The airline already operates a fleet of eight **ATR 72-500s** and will start to take delivery of new -600s in the third quarter of 2016. The -600s will enable **Cebu** to open new routes, to reinforce its main destinations and to gradually replace its current fleet of **ATR 72-500s**. The -600s will feature the high density **Armonia** cabin with 78 slim-line seats and wider overhead bins, which offer 30 percent more stowage space. **Cebu Pacific** uses its **ATRs** on domestic flights throughout the Philippine archipelago.

Braathens Aviation is buying five **ATR 72-600s** which will join five **ATR 72-500s** that are presently operated by **Braathens Regional**. When the new **ATRs** arrive, the airline will gradually phase out its fleet of **Saab 2000s**. The airline optioned 10 additional aircraft, and the first **ATR -600s** will be delivered by the end of 2015. The -600s will seat 72 passengers, and will be operated on regional services in Sweden.

Bahamasair will become a new **ATR** operator when it takes delivery of the three **ATR 42-600s** and two **ATR 72-600s** that it ordered before the **Paris Air Show**. The airline is replacing five 50-seat **Dash 8-300s**. The **ATRs** offer more seats and the latest standards of comfort on short routes to the United States, the Turks & Caicos Islands, and the British Virgin Islands and between the islands of the archipelago. The first will be delivered before the end of 2015. The airline also flies three **737-500s**.

Air Madagascar has operated **ATR** aircraft for nearly 20 years, and it is buying three **ATR 72-600s** to replace its sole **ATR 42-500** and two **ATR 72-500s**. The airline leased two more **ATR**

Viking Air signed an agreement at the **Paris International Air Show** to sell 50 **DHC-6-400s** to China's **Reignwood Aviation Group** as part of a strategic cooperation agreement. The **Civil Aviation Administration of China (CAAC)** recently certified the **Twin Otter** for operations within China, allowing **Reignwood Star Aviation** to take delivery of its first two aircraft during the fourth quarter of 2015. The rest will be phased in through 2020. One of the first two -400s will be configured as a regional commuter aircraft and the second will be a floatplane. The other 48 turboprops will be configured either as commuter landplanes or with amphibious floats. As part of the deal, **Reignwood** will set up a **Viking**-approved completion and service center (**FECSC**). The **FECSC** will see aircraft manufactured at **Viking's** Canadian factories that are destined for the Chinese market, undergo customer completion and customization in-country. **Viking** described the agreement as a "strategic partnership" with **Reignwood** which grants the firm "exclusive representation rights" for the **Twin Otter** in China.

June 2015

Page 20 of 39

72-600s from Irish leasing company **Elix Aviation Capital**. The five ATRs will significantly increase the number of seats available on its main domestic routes. The order was placed in March but was announced at **Paris Air Show**.

Air New Zealand picked up one of its ATR 72-600 options from a previous contract. It will join its fleet of 11 ATR 72-500s and seven ATR 72-600s. It now has seven ATR 72-600s on order, and **Air New Zealand** will operate 25 ATRs in 2017 – one of the largest ATR fleets in the Asia Pacific region.

SATENA, Colombia, signed a firm order for three more **Harbin Y-12Es** with China's **AVIC International**. The order was announced in May as a Memorandum of Understanding, and includes provision for the establishment of a spares depot in Colombia. **SATENA** is owned by the Colombian government, and it already operates two 18-passenger Y-12E turboprops on flights to remote domestic destinations.

Binter Canarias ordered six ATR 72-600s at **Paris Air Show**. The Canary Islands airline purchased its first six 72-seat -600s in February 2014. It has operated ATRs since 1989, and is in the process of replacing its fleet of two ATR 72-200s and 14 ATR 72-500s. The first **Binter** ATR 72-600 is scheduled to enter into service in August 2015 and the last will arrive in 2017. **Binter Canarias** established a new Cape Verdian subsidiary, **Binter Cabo Verde**, on June 17. The start-up recently applied for its **Air Operator Certificate (AOC)** from the Cape Verde civil aviation authority (**Agência de Aviação Civil - AAC**). The new airline will operate some of its parent's three **Bombardier CRJ-900s** on routes to Africa. The jets will be replaced with two new ATR 72-600s towards the end of the year.

After Paris Air Show, **ATR** said that Papua New Guinea's **Airlines of PNG** will be the launch customer for its new ATR 72-600 Combi. The aircraft will feature a mixed cabin capable of handling 44 passengers and up to 19 cubic meters of cargo. The airplane will be delivered later this year and will join **Airlines of PNG's** fleet of 14 Dash 8-100s. **ATR** also said it is working on a new high density ATR 72 cabin configuration which will feature four more seats than the current 74-seat layout. The 'High Density' cabin could be certified before the end of the year and will be available for service entry in 2016.

WestJet Encore confirmed options for five more **Bombardier Dash 8Q-400 NextGen** aircraft when it placed a firm order for a sixth Q400NG in March. The order was announced at **Paris Air Show**. **Westjet Encore** reserved 25 options when it ordered 20 Q400s in August 2012. It took up 10 options by July 2014 and with the latest order, **Westjet** has 36 Q400s on order and another 10 outstanding options. The airline received its 22nd Q400 with the delivery of SN 4500 in June.

Order Changes and Cancellations

Airbus Reported Tigerair Cancellations in May. The Singapore-based low-cost carrier dropped two A320ceos when it ordered two A320neos. There were several other order changes as well. One A320ceo order was transferred from the "**Undisclosed**" category to **Air China**, raising its A320 total to 30, with 30 delivered. One "**Undisclosed**" A320ceo was transferred to **BOC Aviation**, another to **Loong Air**, and one to **Spring Airlines**. Also under the "**Undisclosed**" category, one A320ceo order was changed to an A321ceo, lowering the A320ceo order total to 151 and raising the A321ceo total to 90.

June 2015

Page 21 of 39

Transaero Airlines, Russia, will probably not take delivery of two A380-800s (SN 196 & 212) this year, **Airbus President Fabrice Brégier** told the press. He said, “We have to face reality; when we have a customer who is really facing commercial issues, hopefully temporarily, but based on the rouble devaluation and the Russia tourist market shrinking, we need to look at what can be done,” This contradicts the optimistic reports made last month. Russia's slowing economy has severely impacted **Transaero**, which lost 14.5 billion roubles (\$255 million) in its 2014 financial year. It secured a three-year, 9 billion rouble government-backed loan from **VTB Bank** in January, to allow it to cope with what it termed “drastically changing macroeconomic conditions.”

American Airlines delayed delivery of 35 A320neo Family aircraft for four to six years. In its **SEC** filing, the carrier said that 10 A320neo Family due in 2017, and 25 due in 2018, will now be delivered in 2021 through 2023. The carrier will not receive any A320neo Family in 2017 and 2018. The airline will still purchase 25 A320neo Family aircraft in 2019 and has a total of 75 aircraft purchase commitments in 2020 and thereafter.

Air France may defer the first deliveries of A350 and 787-9 aircraft. In January, its partner, **KLM** delayed the arrival of 10 new 777-300ERs. **Air France** said it was reviewing its long-term investment plan; **Perform 2020**, and delivery deferrals are an option. The first of 18 A350s and the first of 12 787-9s were scheduled to arrive in the fourth quarter of 2016.

Boeing Reported Four Cancellations in May when one un-named customer dropped four 737 orders that it apparently exchanged for four 737 MAXs. **American Airlines** exchanged one of its 787-8 orders for the larger 787-9 version in May.

The airline now has ordered 20 787-8s and 22 787-9s. It has taken delivery of six 787-8s to date. **Air Canada** switched seven 787-8s order slots into the larger 787-9s while **LAN Airlines** exchanged eight 787-8s for the same number of 787-9s. Now **Air Canada** has ordered and taken delivery of eight 787-8s while it has 29 787-9s on backlog. **LAN** has 12 787-9s on order, another four 787-8s to be delivered, and 10 in service.

Aeroflot – Russian Airlines cancelled the order for 22 787-8s that it placed in September 2007. Deputy General Director for Strategy and Alliances **Giorgio Callegari** told the press at the **Paris Air Show**, “We have exercised our option to terminate the contract on the 787,” and **Boeing’s** order numbers suggest the order was cancelled in June. The **Orders and Deliveries** website should reflect the changes in early July. **Aeroflot** was scheduled to take delivery of its first 787s in 2014, but it deferred them until 2016. **Boeing Commercial Airplanes** President, **Ray Conner**, stated the obvious when he said the “situation in the Russian economy” was complicating the supply of foreign-made aircraft to Russian airlines. Mr. **Callegari** said the decision was based on analysis of “capacity at the [Shere-metyevo] airport,” and the “sustainability of the fleet development – sustainability in terms of the right mix of widebodies and narrow-bodies and network development... We can meet the original targets in terms of volumes of passengers, the size of the company and the performance of the company, by shaping our fleet and network in a more attractive way.” **AVMARK** interprets this to mean ‘we have enough of the right kind of airplanes and do not need the 787.’ Mr. **Callegari** said **Aeroflot** would not incur a financial penalty from **Boeing** for cancelling the order, probably because **Boeing** can easily sell the slots to other customers who are clamoring for earlier delivery positions. **Aeroflot** is reviewing its order for eight A350-800s and 14 A350-900s, but Mr. **Callegari** said they were not being cancelled. Instead, the airline will look at the mix of types and the delivery dates as “part of the discussions,” i.e. delayed.

June 2015

Page 22 of 39

Bombardier said **SWISS** converted 10 of its 30 firmly ordered CS100 aircraft to the larger CS300 aircraft. Its parent, **Deutsche Lufthansa**, ordered the 30 C Series jets for **SWISS** in 2009, and the airline became the 'Launch Customer' in September 2014, when **Malmo Aviation** declined that honor. **SWISS** CEO **Harry Hohmeister**, said, "With its size and its low operating costs, the CS300 aircraft ideally complements the CS100 aircraft and the rest of our European fleet. We can be highly flexible in tailoring capacity to demand on our European routes." The first CS100 is slated to enter revenue service with **SWISS** during the first half of next year.

Leasing & Finance

Air Lease Corporation (ALC) Leases. ALC signed a long-term lease of two A320neo, one A321neo and four A321neoLR (Long Range) aircraft to **Air Astana**, Almaty, Kazakhstan. One A320neo is scheduled for delivery in spring 2016, with the remaining six aircraft being delivered in 2018 and 2019. The planes will come from **ALC's** order backlog with **Airbus**. The flag carrier will use the aircraft for domestic flights as well as on international services to China, India, Russia, and the United Arab Emirates. The A321neoLR will replace the airline's fleet of five 757-200s, and may also be deployed on longer-range routes to London, Bangkok, Ho Chi Minh City and Hong Kong. **Air Lease Corporation** and **Vietnam Airlines** changed their former contract to lease eight **Boeing** 787-9 aircraft to an agreement to long-term lease eight new 787-10s. Deliveries will begin in 2019 and continue through 2021. The 787-10 Dreamliner will be the largest aircraft in **Vietnam's** fleet, and they will come from **ALC's** order book with **Boeing**. **ALC** currently has 13 787-9s and 30 787-10s on order. **ALC** will long-term lease three new **Boeing** 737-800 aircraft to **China Eastern Airlines**. The airline has already leased three new 737s from **ALC**, which have been delivered. The new aircraft are part of **ALC's** order backlog and are scheduled for delivery in 2016. **ALC** has 38 unfilled 737-800 orders.

Neos, Italy, will lease three **Rolls-Royce** Trent 1000-powered **Boeing** 787-8s from **AerCap** in 2018. **Rolls** has already recorded the powerplant agreement in its order book and the jets will come from **AerCap's** orderbook. **Neos** Technical Director **Marco Brusa** said, "These aircraft will be our first new widebodies, powered by our first **Rolls-Royce** engines," and they will join a fleet of **Boeing** 737s and 767s which **Neos** deploys on services within Italy as well as to holiday destinations in the Mediterranean, Africa, Asia and the Caribbean. **Neos** will retire its two 767-300ERs when the 787s arrive.

Aviation Lease and Finance Company (ALAFCO), Kuwait, will dry-lease 14 A320neos to **Air India**. The **Airbus** twinjets will be delivered between April 2017 and March 31, 2018, and the

FLY Leasing said it would sell 33 aircraft for \$985 million this year as part of its ongoing fleet rejuvenation plan. The company will recognize pro rata gains from the sale at the time of transfer of each aircraft. The sale should garner about \$425 million in cash that can be invested in newer aircraft. The lessor will nearly halve the number of aircraft over 10 years of age in its fleet, Chief Executive **Colm Barrington** said. **FLY Leasing** also said its annual management fee payable to its manager and servicer, **BBAM**, was reduced from \$10.7 million per annum to \$5.7 million per annum (47 percent), in connection with the sale of the 33 aircraft. Mr. **Barrington** said, "FLY receives tremendous advantages and economies of scale through its partnership with **BBAM**. As the world's third largest manager of commercial leased aircraft with an established 25-year track record, **BBAM** provides **FLY** with global breadth, depth and experience." **BBAM** owns more than 8 percent of **FLY's** equity.

June 2015

Page 23 of 39

leases will run for 10 years. The flag carrier is replacing 19 elderly A320s that it inherited from **Indian Airlines** in August 2007. They were delivered between 1989 and 1994. **Air India** will also lease five A320-214/Ws from **China Aircraft Leasing Company (CALC)**. The first (SN 6446) was delivered in February and the remaining four are due by October.

Philippine Airlines (PAL) signed agreements to lease two 777-300ERs from **Intrepid Aviation** during the **Paris Air Show 2015**. The official delivery date was not announced, but it was thought to be in 2016. The Filipino flag carrier currently operates six 777-300ERs, of which one is leased from **Intrepid**, and two are leased from **GECAS**. The airline president **Jaime Bautista** told the press that the additional 777s would allow **PAL** to retire or reassign the A340-313s that it operates on routes to Los Angeles and San Francisco. **PAL** will return its six recently acquired ex-**Iberia** A340s (SN 302, 318, 332, 387, 459 & 474) to lessor **Airbus** over the next three years, but before then it may redeploy them on its London and New York services. The A340s will be replaced with new 777s and A330-300s. The airline already flies 14 late-model A330s on medium-haul routes to Asia, Australia, Hawaii, and the Middle East. **PAL** is likely to add between four and six A350-900s or 787-9s between 2017 and 2018 to help maintain modest growth in the long-haul market.

AWAS will long-lease two A321-200s to **VietJet Air**. The Asian budget airline received its first A321 earlier this year and the **AWAS** aircraft will be the second and third of the type in its fleet. They will be fitted with 230 seats and used on high-density routes, such as Hanoi-Ho Chi Minh City.

Engines

CFM International signed orders, commitments, and long-term service agreements for a total of 835 LEAP and CFM56 engines at the **2015 Paris Air Show**. **Jean-Paul Ebanga**, President and CEO of **CFM International** said, "In just three days, we more than doubled our total orders for this year. More than 80 percent of the **CFM** orders and commitments have come from lessors and Asian customers which are pulling the aerospace market forward."

CFM's Paris Air Show Sales. **Korean Air** ordered 60 **CFM** LEAP-1B engines for the 30 **Boeing** 737 MAX aircraft. The order was valued at \$877 million at list price, and includes spare engines. **AerCap Holdings** announced its order for 200 LEAP-1B engines to power 100 737 MAX aircraft. The order was valued at \$2.7 billion at list price. New Chinese carrier, **Ruili Airlines**, signed a \$810 million order for 60 **CFM** LEAP-1B engines to power 30 **Boeing** 737 MAX aircraft. **Ruili** began operations in early 2014, and serves seven domestic routes in China with five Next-Generation 737 aircraft powered by **CFM56-7B** engines. Long-time customer **SMBC**

Rolls-Royce TotalCare Agreements. **Finnair** will be the first European airline to operate the **Airbus** A350 XWB aircraft with **Rolls-Royce's** Trent XWB engines. It signed a long-term **TotalCare** engine servicing agreement with **Rolls-Royce** for the new aircraft type's engines. The agreement covers **Finnair's** entire fleet of 19 A350 XWBs with the service package. The airline's first four A350s are expected to arrive in the second half of this year, with another seven in 2016 and 2017. The complete order will be fulfilled by 2023.

Ethiopian Airlines signed a long-term **TotalCare** engine support package with **Rolls-Royce**. The dozen Trent 1000 engines and support contract are worth \$500 million. The engines will power the six early-model 787-8 Dreamliners that the airline is buying from **Boeing**. **Rolls-Royce** said, "The decision marks a significant vote of confidence in the Trent 1000, **Ethiopian** having previously selected engines from [GE] to power 13 787 Dreamliner aircraft."

Aviation Capital, the world's third largest aircraft lessor, signed an order for at least 20 LEAP-1B engines to power 10 additional 737 MAX aircraft. This follows an order it placed in late 2014 for 160 LEAP-1B engines. The latest order is valued at \$270 million at list price. The Dublin-based **SMBC** currently has a fleet of nearly 300 Boeing 737 aircraft powered by CFM56 and LEAP engines in service or on order. **SMBC Aviation Capital** also selected the **CFM International** LEAP-1A engine to power the 30 new **Airbus** A320neo aircraft it bought recently. The firm engine order was list priced at \$885 million. The lessor currently has a fleet of more than 50 A320 Family aircraft, powered by CFM56 and LEAP engines, in service or on order. **Avolon**, a Dublin-based aircraft leasing company, chose LEAP-1A engine to power 20 new A320neo aircraft. The engine order is list priced at \$590 million. **Avolon** has been a **CFM** customer since its launch in 2010, and it has a committed fleet of 161 CFM-powered aircraft. **Qatar Airways** selected CFM56-5B engines to power eight new **Airbus** A320ceo (current engine option) aircraft. The firm engine order was valued at \$174 million at list price and the airline began taking delivery earlier in 2015. **Minsheng Financial Leasing** ordered CFM56-7B and LEAP-1B engines to power 10 Next-Generation 737s and 20 737 MAX aircraft, respectively. **Minsheng** was established in 2008 and is the largest business jet lessor in Asia. It decided to enter commercial aircraft leasing in 2013. The company currently owns or manages over 30 commercial aircraft, operated by more than 10 international and Chinese customers. **Sriwijaya Air** signed a firm order for CFM56-7B engines to power two 737-900ERs, and it took options for up to 20 additional 20 737 aircraft with **CFM** engines. The airline is based in Jakarta, Indonesia, and began operations in 2003, and now is the third largest airline in Indonesia by market share. The airline currently operates a fleet of 41 Boeing 737 aircraft fitted with CFM56-7B and CFM56-3 powerplants.

Pratt & Whitney PurePower Engine Sales. **China Aircraft Leasing Group (CALC)**, the largest independent operating aircraft lessor in China, signed a Memorandum of Understanding (MOU) to power 18 **Airbus** A320neo aircraft with **Pratt & Whitney** PurePower PW1100G-JM engines. Deliveries are scheduled to begin in 2017. **Turkish Airlines (THY)** signed a MOU for PurePower engines for the 72 firm A321neo aircraft it has on order, plus 20 options. Deliveries are scheduled to begin in 2017. **SMBC Aviation Capital** chose PW1100G-JM engines to power 30 of its **Airbus** A320neo aircraft. The first deliveries start in 2017. **SMBC** has a modern fleet of over 370 owned and managed aircraft valued at more than \$10.5 billion. The PurePower engine family has completed 19,000 hours and 34,000 cycles of full engine testing, including 5,000 hours of flight time.

IAE International Aero Engines V2500 Sales. **BOC Aviation** signed a new agreement for V2500 engines to power 14 new **Airbus** A320 family aircraft. This was **BOC's** second order with **IAE** this year. The V2500 engine is built by **IAE International Aero Engines**, an aero engine consortium led by **Pratt & Whitney** in collaboration with **Pratt & Whitney Aero Engines International GmbH**, **Japanese Aero Engines Corporation** and **MTU Aero Engines**. **Robert Martin**, CEO of **BOC Aviation**, said, "This order further underscores our confidence in the V2500 engine as a fuel-efficient workhorse for more than 150 aircraft in our history, and a significant portion of our A320 family fleet on order." **BOC Aviation** has a portfolio of 251 owned and managed aircraft, operated by 60 airlines worldwide in 30 countries, and it has commitments to acquire 196 aircraft as of 31 March 2015. **CIT Group**, a global leader in transportation finance, selected the V2500 engine to power the five A321ceo aircraft that it ordered in March 2015. Its subsidiary, **CIT Aerospace**, provides leasing and financing packages, including operating leases and structuring and advisory services for commercial airlines worldwide. It owns, finances, and manages a fleet of more than 350 commercial aircraft serving approximately 100 customers in 50 countries. **Wizz Air**, Hungary, picked the V2500 engine to power a

June 2015

Page 25 of 39

new fleet of 17 A321ceo family aircraft that it ordered in September 2013. This new order adds to its existing order for 179 V2500 engines, bringing the new total number of V2500 engines in **Wizz Air's** fleet to 213, including spares. The agreement also includes a long-term flight hour agreement (FHA). The airline was established in 2003, and is now the largest low-cost carrier in Central and Eastern Europe. It flies more than 380 routes from 22 bases, connecting 112 destinations across 38 countries. To date, more than 6,500 V2500 engines have been delivered to nearly 200 customers around the world.

Airline News

TAP Air Portugal Sold to Atlantic Gateway. The **Portuguese Government**, represented by the **Ministers of Finance and the Economy**, signed a contract to sell 61 percent of **TAP** to the **Atlantic Gateway** consortium on June 24. The consortium was made up of entrepreneurs **Humberto Pedrosa** (owner of the **Barraqueiro Group**) and **David Neeleman** (**Azul** shareholder). Mr. **Pedrosa** said “**TAP** will still be our flag carrier. We want to make it the best airline in Europe. A stable company that everyone will be proud to work for. The decision-making center will remain in Lisbon. It is with great pride that we can declare today that **TAP** will continue to be Portuguese.” Mr. **Neeleman** will be a minority owner with 49.9 percent of the **Atlantic Gateway** shares. CEO **Fernando Pinto** will continue to lead the company during the transition. The **Portuguese Government** will receive €10 million and **Atlantic Gateway** will inject €354 million (\$397 million) of fresh capital into **TAP**. **Atlantic Gateway** will strengthen the Lisbon hub, preserve, rejuvenate and strengthen the **TAP** brand; it will keep the corporate headquarters in Portugal and maintain the capacity to fulfil public service options. **TAP** will acquire 53 new aircraft, and between €600 and €800 million will be invested in the next few years. **Atlantic Gateway** may trade the dozen A350-900s on order for 14 A330-900neos (to be delivered in 2017) and 39 A321neoLR Long Range by 2020. They will launch 10 new routes to the U.S., including Washington, Boston and Chicago, and between eight and 10 new routes are planned for Brazil. The government set aside 5 percent of the company to sell to employees and negotiated a deal with most of the company's trade unions whereby the new owners won't be able to make mass layoffs of the 7,500 employees for at least two-and-a-half years after taking control. Mr. **Neeleman** asserted that **Atlantic Gateway** would not reduce staff in the next three years. **TAP** operates 77 aircraft on 2,500 weekly flights, many of them to Brazil, and other countries with which Portugal has historic ties (i.e. its former colonies). Meanwhile, **Avianca Holdings** boss **Germán Efromovich** is threatening to sue because the Lisbon government chose **Gateway** instead of his **SAGEF** consortium. Lawyers submitted a formal request to **Parpública**, the firm which oversees government's shareholdings, to request access to documents including the assessment of the two proposals.

Slight Movement on Aer Lingus Sale. **Etihad Airways** said it will sell its 4.99 percent stake in the Irish flag carrier, if **Ryanair** agrees to dispose of its 29.82 percent of the shares. The **Irish Government** will sell its 25.11 percent

IATA Posts May 2015 Jet Fuel Prices. The association updates the world's average jet fuel prices each week. On June 26, the world's average price of fuel was \$1.761 per gallon, 2.1 percent lower than the May 2015 price of \$1.860. Fuel was also 40.7 percent less than it was in June, 2014. The price of fuel is affected by location. It was only \$1.697 in the Middle East region and was \$1.810 per gallon in Latin America. In Asia, fuel cost \$1.755 per gallon. Fuel rose to \$1.813 in Europe, but dropped to \$1.734 in North America. Since last year, fuel costs in those regions dropped by 39.8 and 41.4 percent respectively. **IATA** estimated that the global airline industry's aggregate fuel bill will total \$73.1 billion in 2015. This will be a decrease of \$80.1 billion from 2014.

June 2015

Page 26 of 39

shareholding now that the **International Airlines Group (IAG)** said it would guarantee that **Aer Lingus** could keep its **London Heathrow** slots. Now the whole deal hinges on whether **Ryanair** will accept **IAG's** offer to buy their shares for approximately €400 million, which seems doubtful. **Ryanair** said it would appeal the **U.K. Competition and Markets Authority's (CMA)** final order requiring the Irish low cost carrier to reduce its 29.8 percent stake to below 5 percent. In 2013, the **CMA** decided that **Ryanair's** presence as a shareholder deterred other airlines from bidding for **Aer Lingus**. **Ryanair's** CEO **Michael O'Leary** dismissed this view of events and said **CMA's** decision was "ridiculous" and the carrier said it will appeal the ruling to both the **Competition Appeal Tribunal (CAT)** and the **U.K. Supreme Court**. **Ryanair** claimed **IAG's** decision to proceed with its acquisition of **Aer Lingus** despite **Ryanair's** minority shareholding was proof the **CMA** findings were "manifestly wrong." As a minority shareholder, it will not be able to block the **IAG's** takeover bid should the owners of more than 50 percent of the shares accept it. So far, **IAG** won agreements to buy a total of 31.10 percent from the government and **Etihad**. Mr. **O'Leary** said, "Even if we accept the **IAG** offer, we will continue to appeal this divestment decision until it is exposed and overturned. We will not allow the **CMA** to keep this precedent. We may at some stage want to acquire someone and we will not have the **CMA** inventing bogus theories of harm." Reports in the British media claimed Mr. **O'Leary** may be willing to sell **Ryanair's** stake in return for more concessions from **IAG**, including a number of its slots at **London Heathrow**. He wants to acquire any Heathrow slots that the **European Commission (EC)** tells **IAG** to relinquish to win the **EC's** anti-trust group's approval of the **Aer Lingus** takeover. **Ryanair** will decide to sell only after the **EC** has issued its own ruling, which could take months.

Representatives from the Sichuan Provincial Government and Deyang Municipal People's Government of China announced plans to host a new biennial international airshow in Sichuan Province in September 2017. The **Sichuan International Airshow** will offer a three-day trade event and two-day public event to showcase international commerce in the fast growing Sichuan region. It will provide a unique opportunity for aviation companies to gain access to the Chinese aviation supply chain. The **Sichuan International Airshow** will showcase **COMAC**, **AVIC** and other state aerospace suppliers and will focus on civil and commercial aerospace, manufacturing, MRO and support services. The organizers of the **Farnborough International Airshow**, and the **European Union Project Innovation Center (EUPIC)**, will work together with the Sichuan and Deyang governments to bring the event together.

Virgin Atlantic wants the U.K. government to safeguard competition if **IAG** buys the Irish flag carrier. **Virgin's** CEO **Craig Kreeger** said, "We expect that the transaction will ultimately reach conclusion, but we'd certainly love to see a hard look at what kind of remedies might be appropriate to allow competitive connectivity to Ireland to continue to exist." He added that joining **Aer Lingus's** transatlantic operation with **IAG's**, which already controls a significant amount of that market, is of concern to him.

WestJet will fly some of its four ex-**Qantas** 767-300ERs to **London Gatwick** from Canada in the spring of 2016. **WestJet** will start widebody operations this August with flights from Toronto to Calgary, followed by flights to Hawaii this December.

Air Canada said it is considering adding 10 **Airbus** A321s to the fleet of its low-cost carrier **Rouge**. **Rouge** currently operates 20 A319s and 12 Boeing 767s, and it plans to increase its fleet to 50 by 2018.

June 2015

Page 27 of 39

CEO **Calin Rovinescu** said, “The ultimate objective is to have 25 narrow-bodies, and up to 10 of those could be larger A321s.” **Air Canada** may look at the secondary market for the A321 and will not necessarily buy new.

Bankruptcy of the Month

Falcon Air Express filed for bankruptcy just days after it returned its Part 121 Air Operators Certificate to the **Federal Aviation Administration**. The carrier lost a lucrative contract with U.S. **Justice Prisoner and Alien Transportation System (JPATS)**, and at least one of its seven MD-83s was repossessed while parked at **Lakeland Linder Regional Airport** in Florida. **Falcon Air Express**, was embroiled in various lawsuits with ex-employees claiming breach of contract, violation of the Federal **Family and Medical Leave Act**, and sexual harassment, among other complaints. The airline’s president, **Nelson Ramiz Sr.**, blamed protracted divorce proceedings with his ex-wife for compromising his ability to run a safe, compliant airline. He bought the then-bankrupt **Falcon Air Express** for \$3 million in 2007, and returned the carrier to the ACMI/charter market with a fleet of seven MD-83s. It also operated for the U.S. **Department of Homeland Security**.

United Airlines Targeted the South American Market when it offered to purchase a 5 percent stake in **Azul Linhas Aereas** for \$100 million. The two airlines are expected to operate a codesharing agreement. The offer is subject to approval from the government and will involve **United** naming a representative to the board of **Azul**. **United** will benefit by opening up more Brazilian cities to its customers, while **Azul** will benefit from the cash injection. This connection between **United** and **Azul** followed **Delta’s** purchase of 3 percent of Brazil’s second airline, **Gol**, for \$100 million, in 2011.



28 East reported the delivery of its first Airbus Corporate Jet ACJ319 (SN 5963). The green aircraft was handed over to the **Fokker Services** facility at Woensdrecht, Holland, in February 2014 for interior completion. It was redelivered to **K5-Aviation**, Munich, in April, which will manage it. The aircraft features a spacious VVIP cabin with 19 seats, and two bedrooms, one of which has an in-suite shower. The bedrooms can also be converted into relaxation areas, when not in use for sleeping. This VVIP ACJ319 is now available for charter through **28 East’s** sister company **Vertis Aviation**. This is the fifth aircraft **Vertis** will market on behalf of the Germany-based operator **K5-Aviation**. The operator was founded in 2010.

Fokker Services selected **Aviointeriors** for the provisioning of the Business Class “Andromeda” and the Economy Class “Centaurus” seat models for its VIP 737-800 program. **Fokker Services** is part of **Fokker Technologies**, which develops and produces advanced components and systems for the aerospace industry. **Fokker Services** supplies integrated maintenance support and VIP completion and modification services to manufacturers, owners and operators. **Fokker Services** is an authorized **Boeing Business Jet Completion Center**.

Cargo Pallet

Airbus and ST Aerospace, Singapore, signed an agreement at the **Paris Air Show** to offer passenger-to-freighter (P2F) conversions A320/A321 aircraft. **Airbus** foresees a demand for more than 600 P2F

aircraft over the next 20 years in the small freighter segment. The A320P2F will feature 11 main-deck container positions and will be capable of carrying 21 metric tons of payload over 2,100 nm. The A321P2F will have 14 main-deck positions and will be able to carry up to 27 tons over 1,900 nm. The first converted A321P2F will be delivered in 2018. **Elbe Flugzeugwerke (EFW)** will market and manage the P2F aircraft program. **Airbus** and its partner **ST Aerospace** currently hold a majority stake at the Dresden-based freighter conversion specialist. **ST Aerospace** will provide its especially developed conversion technology to implement the new business line for A320/A321 P2F aircraft. It will buy another 20 percent of **EFW's** shares, raising its ownership to 55 percent of the company's stock. **Airbus Group** will become a minority partner in **EFW**, with 45 percent of the company. **EFW's** management team will remain in place and the P2F program will retain value-adding jobs in the Dresden region. The A320P2F and A321P2F will complement **Airbus'** larger A330F and A330P2F. Airlines will benefit from the flight-crew and operational commonality through Cross-Crew-Qualification and Mixed-Fleet-Flying across their **Airbus** freighter and passenger operations.

Airbus delivered its last purpose built A300-600F in 2007 and its freighter strategy has been haphazard since then. It cancelled the A380F program the same year, which gave new life to the **Boeing** 747-8F, 767-300F and 777F as **FedEx** and **UPS** had to turn to **Boeing** for new freighters. **Airbus** thought it had a winner with the A330-200F, but saw its sales shrink from nearly 100 to only 42 over the last eight years. **Airbus** was slow in launching an A330-300 P2F program, for fear of losing even more A330F sales. It also failed to launch an A320 conversion program with the Russians a few years ago, claiming the high residual value of used A320s made the freighters too expensive. This too left the 737-300/400 and 757 P2F programs as the only alternatives for short-haul cargo carriers. **Airbus** is hoping that by letting **ST Aerospace** lead, sales may follow. Sale of the majority of **EFW** gives **ST Aerospace** a real stake in the program and gives **Airbus** the chance to offer a family of freighters, from the A320 to the A330-300, with lesser burden on its finances.

Precision Aircraft Solutions was contracted to convert four former AerCap 757-200s, (SN 27621, 26278, 30757 & 30758) for Chinese delivery services company **SF Express (Shun Feng Airlines)**. The aircraft were all leased to **Thomas Cook Airlines** until late 2014 and are powered by **Rolls-Royce** RB211 engines. Three MROs will be involved in the conversions, **Air China Technics**, Chengdu (one aircraft), **HAECO**, Xiamen (two), and **AeroTurbine** will convert two in Goodyear, Arizona. All the conversions will be completed by mid-2016. **Precision Aircraft Solutions** has begun a 757 passenger-to-freighter conversion for San Francisco-based **Vx Capital Partners**. The privately owned leasing company specializes in commercial aircraft and engines and chose **Precision** to help with capitalizing on the thriving cargo market. The ex-**United** 757-222/W (SN 25397) is fitted with winglets and **Pratt-Whitney** PW2037 engines. The conversion began at **HAECO Americas** in Greensboro, NC, in June and will be completed by the fourth quarter of 2015.

Aeronautical Engineers (AEI) and **GE Capital Aviation Services (GECAS)** announced the launch of the 737-800SF (special freighter) conversion program at the **Paris Air Show**. **GECAS** plans to convert up to 20 of its **Boeing** 737-800NG passenger aircraft to freighters. **AEI** will perform the conversions at its facilities in the U.S. and China. The first aircraft conversion will start in 2016 so that the **FAA Supplemental Type Certification (STC)** can be awarded in 2017. **GECAS' Cargo Aircraft Group** will then lease the freighters to customers. **Aeronautical Engineers** formally launched the program last year. It said that securing **GECAS** as the launch customer for the -800 conversion will insure a "high residual value solution" for the lessor's -800 fleet. **GECAS' Cargo Aircraft Group** was formed in

June 2015

Page 29 of 39

2000, and currently leases nearly 100 737, 767, 747 and 777 freighters to airline customers worldwide. In 2001, **GECAS** announced plans to convert 737-300 and -400 aircraft into freighter aircraft. In 2002, the passenger-to-freighter program expanded to include 767-200 models. In 2005, **GECAS** began converting 747-400s to freighters. In total, **GECAS** has leased more than 60 converted freighters to air cargo carriers worldwide.

China Cargo Airlines recently parked its last of nine MD-11Fs (SN 48545), at **Shanghai Pudong Airport**, ending the types service carrier with the airline. Its sole 757-200(F) (SN 24472) will be returned to **AerCap** in the near future. The airline's fleet renewal and rationalization program also led to the grounding of its three A300-600(F)s. **China Cargo** still operates six 777F and four 747-400(F) freighters. **China Southern Airlines** will reactivate one of two 747-41BF freighters (SN 32803) in July. The airline grounded it and sister ship (SN 32804) in August 2013. The second 747F will be brought out of retirement in August. **China Southern's** cargo unit also operates nine 777Fs.

Air China Cargo, China Cargo Airlines and China Southern Cargo will merge to form Asia's largest freight transport company, the **Civil Aviation Administration of China (CAAC)** Deputy Director **Zhou Laizhen** said. No timeline, valuation or reason for the merger was mentioned. **Air China Cargo** is a joint venture freight project between state-owned **Air China** and privately-owned **Cathay Pacific**, Hong Kong. It has registered capital of 3.24 billion yuan (\$518.4 million), over 4,200 employees and operates three 747-400(F)s, four 757-200(F)s, and six 777Fs. **China Cargo Airlines** is a 70/30 joint venture between **China Eastern Airlines** and **China Ocean Shipping**. It has 950 million yuan (\$152 million) in registered capital, and operates four 747-400(F)s, one 757-200(F) and six 777Fs. according to its website. **China Southern's** freight operations include two recently reactivated 747-400(F)s and nine 777Fs. Together, the airlines connect the Chinese market and those in Asia, Europe, and North America.

Military Market

The Government of Qatar signed a purchase agreement for four more C-17 Globemaster III airlifters. The aircraft will join the **Qatar Armed Forces' (QAF)** current fleet of four C-17s to meet their ongoing airlift requirements. Qatar was the first Middle Eastern customer to order C-17s, and received two Globemasters in 2009 and two additional C-17s in 2012. **Boeing** said it "stands ready to support, sustain and maintain Qatar's expanded fleet of C-17s to keep their planes mission ready." **AVMARK** has to wonder why tiny Qatar needs eight C-17s when the **NATO** alliance has only three. Perhaps Qatar will loan their C-17s to their neighbors when needed.

South Korea Chose the Airbus A330 MRTT as the country's in-flight refueling tanker. Four A330 Multi-Roll Tanker Transports will be purchased for approximately 1.2 trillion won (\$1.07 billion), and they will be delivered in 2018 and 2019. The A330 MRTT beat **Boeing's** KC-46A and **Israel Aerospace Industries' 767 MMTT**, the South Korean **Defense Acquisition Program Administration** said. The country has been trying to buy aerial tankers for about a decade, but was constrained by the defense budget. **South Korea** wants to strengthen its air defenses amid tensions between China and Japan over maritime interests and because North Korea continues to bolster its military. To date, **Airbus** has orders or commitments for nearly 60 A330 MRTT tankers from countries including the U.K., Australia, Saudi Arabia and Singapore, which have 24 tankers already in service. The manufacturer recently won orders from France and India. **Boeing** has sold 179 767-based KC-46s to the U.S. **Air**

June 2015

Page 30 of 39

Force but has not won any foreign orders. Both **Airbus** and **Boeing** are competing for Japan's tanker contract. The **Japan Self Defense Forces** operate four KC-767J tankers purchased early this century.

The **Royal Australian Air Force (RAAF)** will obtain two more **Airbus Defense and Space A330** Multi-Role Tanker Transports (MRTT), which the Australians call the KC-30A. The two A330s will be delivered in 2018 and will raise the tanker fleet to seven aircraft. The deal is priced at A\$408 million (\$314 million).

The **French Air Force** received its seventh of 50 A400Ms (SN 019) on June 19. The tactical transport was flown to its **Orléans-Brice Air Base**, one day after **Airbus** received approval from Spain's **DGAM – Dirección General de Armamento y Material** to resume deliveries. The aircraft is the first to be delivered in a new configuration capable of performing the airdrop of equipment. Another A400M is poised for delivery to the **Royal Air Force**, and will be handed over "in a matter of days, with a number of others to follow in the coming weeks" also to the **RAF**, **Airbus** said. Further, "The production plan for the year is under review following the accident, but is still targeting at least 13 aircraft in 2015, plus up to four more subject to flight-test results due this summer."

Antonov, Ukraine, quietly launched a new jet-powered military and civil transport program at **Paris Air Show**. Chief Designer **Dymitry Kiva** identified the An-188 as a turbofan-engined variant of the An-70 propfan. It will be sized between the **Lockheed Martin C-130J** and the **Boeing C-17** strategic air lifter, and it will have a maximum take-off weight of 140 tons and payload of 40 tons. It will be comparable to the **Airbus A400M Atlas**. He said it would be able to operate from unpaved airstrips. It will be powered by four jet engines and fitted with a mixture of Ukrainian and Western avionics and systems, Mr. **Kiva** said. **Antonov** did not say who would provide the engines, or when the first transports will enter service.

Airbus Defense & Space Sold Four C295Ws to Saudi Arabia. "The C295W has been chosen based on its demonstrated excellent operational capabilities in hot and severe conditions, and its proven affordable maintenance and operational costs," **Airbus** said. The delivery dates for the winglet-equipped twin turboprop aircraft was not announced. The **Royal Saudi Air Force** has operated four CN235s since their deliveries in 1986 and 1987.

AIRCRAFT DELIVERIES & SALES

Airbus

Airbus A318 & A319. **Airbus** delivered three A319s in May. **China Eastern Airlines** accepted one **Tianjin FAL**-built -115/W (SN 6469), and **Tibet Airlines** received its 13th and last -115/W (SN 6588) from Hamburg. **American Airlines** obtained its sixth of seven ordered -115/Ws (SN 6595).

Airbus A320. **Airbus** delivered 25 A320s during May, including three -214/Ws (SN 6587, 6605 & 6606) to **easyJet**. The airline now has 89 in its fleet and another 54 on order. Two A320s each were delivered to three airlines. **Wizz Air**, Hungary, accepted two -232/Ws (SN 6576 & 6589), and **VivaAerobus** received two -232/Ws (SN 6574 & 6602). The Mexican airline sold them to **Avolon**

June 2015

Page 31 of 39

Aerospace and leased them back as part of a four-aircraft deal. **Vueling Airlines** took delivery of its seventh -232/W (SN 6607), and leased -232/W (SN 6594) from **AWAS**. Chinese lessors accepted three A320s. **BOC Aviation** leased its fifth -232/W (SN 6580) to **Beijing Capital Airlines**, **China Aircraft Leasing Co. (CALC)** leased a fifth -232/W (SN 6608) to **Qingdao Airlines**, and **ICBC** leased a fourth **Tianjin FAL**-built -232/W (SN 6486) to **Sichuan Airlines**. **Avianca Brasil** leased -214/W (SN 6598) from **Synergy Aerospace**, and **AWAS** leased its seventh -214/W (SN 6538) to **Kuwait Airways**. **Garuda** leased -214/W (SN 6596) to its subsidiary, **Citilink**. **Avolon** delivered the sixth -216/W (SN 6597) to **Pegasus Airlines**. The airplane was originally allocated to **AirAsia**, and it was picked up by **Avolon**. The lessor has three more A320ceos on order. In China, **Tianjin FAL** delivered -232/W (SN 6462) to **China Southern Airlines**, and -214/W (SN 6462) to **Air China**. **China Eastern Airlines** acquired -232/W (SN 6578), and **Loong Air** obtained -214/W (SN 6600). Elsewhere in Asia, **VietJet Air** received its fifth -214/W (SN 6584), **Spring Airlines** accepted -214/W (SN 6591), and **Tigerair Australia** took delivery of its fifth of six -232/Ws (SN 6604). It was transferred to **Tigerair Taiwan**, as that airlines fourth A320. In the Americas, **Spirit Airlines** obtained -232/W (SN 6586), and **Volaris** acquired -233/W (SN 6610).

China Aircraft Leasing Co. (CALC), the largest independent operating aircraft lessor in China, leased a new A320-214/W (SN 6540) to **Sichuan Airlines** in June. The airplane was built at Tianjin, China, and was the second that **CALC** leased to **Sichuan**. The A320 was the 50th commercial aircraft in **CALC**'s portfolio, the majority of which were A320 Family aircraft. Most have been leased to top-tier Chinese and Asian airlines as well as a newly established regional airline. **CALC** was established in Hong Kong in 2006, and was the first aircraft leasing company funded by Chinese capital. In 2011, **CALC** placed a launch order for 20 **COMAC C919s**. During **Farnborough Air Show 2012**, **CALC** ordered 36 A320 Family aircraft, and later placed an additional order of four. In December 2014, **CALC** placed an order for 74 A320neos, and 10 A320ceos and 14 A321ceos, which was the largest single order from a Chinese lessor, and raised **CALC**'s cumulative order book to 140 A320 series aircraft.

SMBC Aviation Capital delivered one A320-214/W (SN 6637) on lease to **Juneyao Airlines**, from its direct order book, in June.

GE Capital Aviation Services Limited (GECAS) completed a purchase-and-leaseback transaction with a new customer, **PT Batik Air Indonesia**, for four new **Airbus A320** aircraft. The first -214/W (SN 6628) was delivered in June. The remaining three aircraft will be delivered throughout 2015. **Batik Air** is a subsidiary of **Lion Group**, and currently operates a fleet of more than 25 aircraft to a dozen destinations in Indonesia.

Airbus A321. **Airbus** delivered nine A321s in May, including two -231/Ws (SN 6575 & 6609) to **JetBlue Airways**. **Air Lease Corp.** leased -231/W (SN 6581) to **Sichuan Airlines**. It was the 100th aircraft to be delivered to China's largest all-**Airbus** operator. The -231/W was equipped with Sharklet fuel saving wing tip devices, powered by **IAE V2500** engines, and fitted with a two class cabin seating eight business and 186 economy passengers. **Sichuan Airlines'** fleet comprises 24 A319s, 43 A320s, 26 A321s and seven A330 Family aircraft. **ALC** leased -231/W (SN 6601) to **Volaris** – the Mexican airlines second A321 leased from **ALC**. **BOC Aviation** leased -211/W (SN 6585) to **EVA Airways**, and **TAM Linhas Aereas** acquired -211/W (SN 6592) from **LATAM Airlines Group**. **Turkish Airlines (THY)** accepted -231/W (SN 6599). **Condor** leased -211/W (SN 6615) from **ICBC**, and -211/W (SN 6590) from **GECAS**. The latter was the last of nine A321-211/Ws to be leased to **Condor's** parent, the

June 2015

Page 32 of 39

Thomas Cook Group. The others were handed over from October 2014 to the present. **Thomas Cook Group** currently operates a fleet of about 90 aircraft to nearly 100 vacation destinations.

Avolon Aerospace leased one A321-200 to **Air Berlin** in June. This was **Avolon's** fourth aircraft to be leased to **Air Berlin**.

Airbus Completed the Initial Assembly of its First A321neo (SN 6673) at its **Finkenwerder** plant, Hamburg, Germany. The aircraft was rolled off the assembly line and is being fitted with flight-test equipment and **Pratt & Whitney** PW1100G engines. The plane will not fly until the technical issues which halted the PW-powered A320neo test flights are resolved. The installation of the test equipment will take a few weeks, but the maiden flight does not have a firm date. The A321neo test regime will be different because A321neos' wings are unique to the type. **Airbus** will operate one A321neo test aircraft each with the PW1100G or **CFM** LEAP-1A. The heaviest A321neoLR will have a maximum take-off weight of 97 tons. **Airbus** has sold 811 A321neos by the end of May 2015; the first one will enter service towards the end of 2016.

Airbus A330. **Airbus** delivered four -200s and two -300s during May, including the 35th -243 (SN 1610) to **Airbus Defense and Space**. It will be converted into an A330 MRTT aerial tanker for the **Royal Air Force**. **Hawaiian Airlines** received its 17th of 18 ordered -243s (SN 1615), and **China Eastern Airlines** acquired its 30th -243 (SN 1617). **Air Algérie** accepted its seventh of eight -202s (SN 1630). **Turkish Airlines (THY)** obtained its 22nd -303 (SN 1629). **Delta Air Lines** took delivery of the first of 10 242-ton maximum take-off weight -302s (SN 1627). The A330 also features a new aerodynamic package and engine improvements. It will operate on **Delta** routes in the Pacific. The other nine -302s will be delivered through 2017. The airline has also ordered 25 A330neos and 25 A350-900s. The new twin-aisle Airbuses will replace 767-300ERs and 747-400s, when the first A350s are delivered in 2017 and the A330neos arrive in 2019.

Airbus A340. **AerFin** has purchased the first three A340-311s (SN 220, 228 & 137) from **Cathay Pacific Airways**. The company will also buy **Cathay's** eight remaining A340s-300s. **AerFin** will disassemble the A340-300s to provide **AerFin's** customer base with Serviceable Used Material to support continued A340-300 operations.

Mahan Air, Iran, recently purchased seven A340-600s (SN 371, 376, 383, 391, 416, 449 & 615) from **Al-Naser Airlines**, Iraq, which in turn bought them from **HiFly Malta** and **Virgin Atlantic**. **Mahan** also bought one A321-131 (SN 550) and A340-313 (SN 164) from **Al-Naser** in May. Two airplanes will be parted out. The purchase of aircraft parts was allowed under an interim nuclear deal between Iran and world powers concluded in late 2013, but the U.S. still forbids Iran from buying aircraft. Iran is subject to economic sanctions from the United States, the European Union and the United Nations over its disputed nuclear program. Iran said it will take legal action if Washington tries to stop Iran's airlines from flying their newly acquired aircraft on international routes. The **Mahan** A340s will fly from Tehran to Dubai and Istanbul, and later they will be used on long-haul routes. Aviation experts said Iran is buying A340s because the country lacks the approvals needed to fly two-engined aircraft on long-haul routes due to years of enforced isolation in the global aviation market. The experts did not mention the fact that A340s are cheap, plentiful and powered by **Rolls-Royce** engines, which lowers the "made in the USA" content of the aircraft's components. An agreement to restrict Iran's nuclear power ambitions would open the Iranian market to purchases of new and used aircraft and may improve the country's abysmal safety record.

June 2015

Page 33 of 39

Tunisair took delivery of its first A330-243 (SN 1631) on June 9, and became a new operator of this type of aircraft. The widebody joined the airline's existing fleet of four A319s and 17 A320s. The -243 seats 24 passengers in business class and 242 in economy class.

Beijing Capital Airlines will acquire three A330s for new international routes that will be launched in September. The subsidiary of **Hainan Airlines** will fly to Copenhagen and Helsinki from Beijing. The source of the A330s was not mentioned, but **Hainan** has six -300s on backlog.

Kuwait Airways took delivery of its first A330-243 (SN 1626) in June, and became a new operator for the type. Their -243s are fitted with 17 full-sleeper first class modules, 30 business and 165 economy seats. The airline contracted to lease seven A320neos and five A330-200s in addition to the purchase of 10 A350-900s and 15 A320neo Family aircraft.

Airbus A350. **Qatar Airlines** took delivery of its third -941 (SN 009) in May, and its fourth -941 (SN 010) in June. **Airbus** intends to deliver 15 A350s this year.

Vietnam Airlines became the second airline in the world to operate the all-new A350 XWB, when it took delivery of its first -941 (SN 014) on June 30. The A350 was leased from **AerCap** and it will be used on long-haul routes starting in early July, initially on the Hanoi-Ho Chi Minh domestic sector and then on non-stop flights from Hanoi to Paris. The aircraft is configured with 29 seats that convert to full flat beds in Business Class, 45 seats in Premium Economy and 231 in Economy. **Vietnam** ordered 10 A350 XWBs from **Airbus** and will lease a total of four more from **AerCap** and **CIT Aerospace**. **Vietnam** also operates 49 A321s and 10 A330s. **AerCap** is **Airbus'** largest customer, and it has ordered 20 A350 XWBs. **CIT** has ordered 14 A350-900s.

Airbus A380. **Etihad Airways** accepted its third -861 (SN 176) in May. **Emirates** received its 61st -861 (SN 178) and **Asiana Airlines** took delivery of its third -841 (SN 179). **Airbus** has handed over 10 super jumbos in the first five months of 2015.

Boeing

Boeing 737 NG. **Boeing** delivered 37 737s in May, including eight 737-900ERs. **United Airlines** received two -924ER/Ws (SN 42200 & 42201), and now it has 21 more on order. **Lion Air** took delivery of two -9GPER/Ws (SN 39839 & 39860) and transferred them to **Thai Lion Air**. **Oman Air** accepted two -91MER/Ws (SN 40070 & 44425). **Turkish Airlines (THY)** celebrated the delivery of the

It is Rumored that United was interested in the short term use of two ex-Skymark A380-841s (SN 162 & 167). The Chief Financial Officer **John Rainey** played down U.S. airline press reports by saying his airline was "currently examining the type", but it may not suit **United's** model given its preference for smaller widebodies, which were better suited to the business market. **Airbus** should make the same deal with **United** as it made with **Eastern Air Lines** back in the 1970s. **Airbus** leased four A300s to **Eastern** on very favorable terms to get them to "test drive" the type for several months. **Eastern** liked the A300s so much that it bought 34 A300B4-200s and effectively legitimized **Airbus** in the U.S. market. **Airbus** may as well get some revenue from the parked A380s, while trying to entice a U.S. mega carrier to buy or lease more.

airline's 125th airplane purchased from **Boeing** – a -9F2ER (SN 42013). **Turkish** will take delivery of 12 airplanes from **Boeing** this year. **Delta Air Lines** acquired its 40th -932ER/W (SN 31951). **AerCap** leased out four -800/Ws, including two -81B/Ws (SN 41609 & 41680) to **China Southern Airlines**, -8U3/W (SN 41806) to **Garuda Indonesia**, and -8Q8/W (SN 41807) to **Sunwing Airlines**. **Air Lease Corp.** leased -8K2/W (SN 42067) to **Transavia**, -8K2/W (SN 41332) to **Transavia France**, and -87L/W (SN 42050) to **Kunming Airlines**. Two -8H4/Ws (SN 36903 & 36657) were delivered to **Southwest Airlines**, for a fleet total of 91, **American Airlines** took two -823/Ws (SN 31217 & 31218), for a total of 255, and **Ryanair** bought two more -8AS/Ws (SN 44699 & 44700). **Boeing** delivered five -800s to Chinese airlines, including one -89L/W (SN 41105) to **Air China**, one -89P/W (SN 41509) to **China Eastern Airlines**, one -85N/W (SN 41624) to **Shandong Airlines**, one -86D/W (SN 39316) to **Shanghai Airlines**, and one -87L/W (SN 40826) to **Shenzhen Airlines**. **China Southern Airlines** leased -86N/W (SN 43404) from **GECAS**, and **BOC Aviation** leased -8AL/W (SN 40554) to **Andalu Jet**, Turkey. **SMBC Aviation Capital** leased -8FH/W (SN 39959) to **Sunwing Airlines**. **Avolon Aerospace** bought -8KN/W (SN 40278) from **flydubai** and leased it back. This was **Avolon's** sixth lease to the low-cost carrier and the deal was financed by **Arab Banking Corporation (ABC)**. **Transavia France** took delivery of -8K2/W (SN 44567), and **Norwegian Air Shuttle** received -8JP/W (SN 41136). **SilkAir** acquired -8SA/W (SN 44227), and **Ethiopian Airlines** bought -860/W (SN 40968), and sold it to **AWAS** for lease back. **COPA Airlines** purchased -8V3/W (SN 41447), and **WestJet** accepted -8CT/W (SN 60132).

Myanmar National Airlines took delivery of its first 737-86N/W (SN 43405), on June 13. The twinjet is one of six the Myanmar national carrier is leasing from **GE Capital Aviation Services (GECAS)**. The airline will acquire four 737 MAX 8s sometime after 2017. The state-owned carrier also operates one ATR 42-300, three ATR 72s, two E-190s, and one **Fokker F28-4000C** on flights throughout Myanmar.

Avolon Aerospace leased 737-8GP/W (SN 39857) to **Malindo Air**, and -84P/W (SN 43660) to **Hainan Airlines** in June. These were **Avolon's** first leases with the respective airlines.

Boeing 747. **Air China** received its sixth -89L Intercontinental (SN 44933), and has one more on order. The airline ordered five -8Is in September 2012 and two in December 2013. To date, **Boeing** has delivered 57 747-8 Freighters and 33 passenger 747-8Is.

Boeing 767. **Federal Express** took delivery of its 16th -3S2F (SN 44380) in May. The cargo airline has 37 more on order.

Boeing 777. **Boeing** delivered eight 777-300ERs in May, including two -300ERs to **Air Lease Corp. (ALC)**, which long-term leased -3B5ER (SN 42123) to **Korean Air**, and -360ER (SN 44550) to **Ethiopian Airlines**. **GECAS** leased -36NER (SN 42107) to **EVA Airways**. **Boeing** delivered the 13th of 16 -3M0ERs (SN 41691) to **Aeroflot - Russian Airlines**, one -328ER (SN 40064) to **Air France** and one -381ER (SN 60381) to **All Nippon Airways**. **Cathay Pacific Airways** received its 51st -367ER (SN 41764), and it has two more on order for delivery this year. **China Airlines** accepted the first of six -309ERs (SN 43978) in May. It was leased from **ICBC (Industrial and Commercial Bank of China)**. The airline already leases four -36NERs from **GECAS**.

Thai Airways International celebrated the flag carrier's 25th direct 777 delivery, a -3D7ER, (SN 42114), in June. The airplane was the airline's fourth of six ordered -300ERs. **Thai** has operated nearly every model of the 777 over the last two decades and also currently operates five 787 Dreamliners. **THAI Cargo** was the first carrier in Southeast Asia to utilize the 777 Freighter and in January the two companies celebrated the airline's 75th direct delivery from **Boeing**.

China Airlines newest 777-309ER (SN 43980) landed at Le Bourget, France in June, for static display at the **Paris Air Show**. **China** currently operates five newer 777-300ERs on routes serving Hong Kong, Bangkok, New York, Los Angeles and San Francisco. The airline is scheduled to receive four more in the next couple of years to support the launch of new European and North American routes.

Boeing 787. **Boeing** delivered 13 787s in May, including two 787-8s (SN 40620 & 40621) to **American Airlines**. It expects to have 13 787-8s in its fleet by the end of the year. **TUI Travel PLC** leased two -8s (SN 37229 & 37230) to **Thomson Airways**. **All Nippon Airways** accepted its 33rd of 36 -8s (SN 34526) and its fourth of 44 -9s (SN 34527). **Japan Airlines** received its 21st -8 (SN 34854), and it has four more on order. **AerCap** took delivery of -8 (SN 38758) and leased it to **Ethiopian Airlines**. **Qatar Airways** acquired its 22nd -8 (SN 38340), and eight more are on order. **Avianca** purchased -8 (SN 37506) and sold it to **Avolon Aerospace** for lease back. **Avolon** bought 787-9 (SN 37970) from **Virgin Atlantic Airways** after its delivery. This was the second of four -9s to be purchased and leased back to **Virgin**. **Scoot**, Singapore, accepted its fourth -9 (SN 37115), and it has seven on backlog. **United Airlines** obtained its sixth -9 (SN 37814) and has a dozen more to be delivered.

Japan Airlines took delivery of its first 787-9 (SN 35422) in June. It will be deployed on **JAL's** Tokyo Narita-Jakarta route on July 1. The Japanese carrier has 19 more -9s on order and 21 of the smaller 787-8s in service.

WORLDWIDE AVIATION MARKETING AND MANAGEMENT SERVICE **Regional Jet**

Bombardier. **American Airlines Group** received three CRJ900 NextGen aircraft (SN 15365, 15366 & 15367) in May. The aircraft will be operated by the group's wholly-owned subsidiary, **PSA Airlines**, under the **American Eagle** brand. **American** now has 29 of its 54 ordered CRJ900NGs in its fleet. **All Nippon Airways** subsidiary, **Ibex Airlines**, took delivery of its seventh CRJ700NG (SN 10344) in June.

Bombardier Commercial Aircraft delivered the first of seven CRJ900NGs (SN 15373) to **Mesa Air Group**, in late June. **Mesa** will operate the aircraft for **American Airlines** under the **American Eagle** brand. The firm order for seven CRJ900NGs was announced in March, 2015, and will increase **Mesa's** fleet to 58 CRJ900s.

Embraer. **Embraer** delivered the fifth of 60 EMBRAER 170-200 LRs (E175) (SN 17000477) to **American Airlines** in May. **American** selected **Compass Airlines**, a wholly-owned subsidiary of **Trans States Holdings**, to operate the first 20 E175s under the **American Eagle** brand. **United Airlines** bought four E175s (17000474, 17000475, 17000476 & 17000478), and leased them to **Mesa Airlines** and **Skywest Airlines** for operation for **United Express**.

Jetairfly, Denmark, received EMBRAER 190-100 STD (E190) (SN 19000689), and **AZUL Linhas Aereas** accepted E195 (SN 19000692) in April.

June 2015

Page 36 of 39

SkyWest Airlines took delivery of the first new E175 (SN 170900483) to be operated for **Alaska Airlines** on June 1. The jet will operate under the **Alaska SkyWest** banner. Another two E175s (SN 170900485 & 170900486) were delivered in June and all three will enter service from Seattle and Portland to the Midwest on July 1. Another four jets will be delivered during the first quarter of 2016.

Sukhoi Superjet. **Interjet** accepted its 15th of 30 new Superjet 100-95Bs (SN 95066) on May 20. **Aeroflot** received its 30th Superjet 100-95B (SN 95089). It was leased from **Sberbank Leasing** and was named after a Hero of the Soviet Union and World War II pilot, **Boris Lakhtin**. The airline returned its first 10 early-model SSJ100s to the manufacturer and it operates 20 of the newer “full configuration” SSJ100s. **Aeroflot’s** Superjet 100s feature 87 seats in a two-class configuration. The airline signed its original contract for 30 SSJ100s. In January 2015, a follow-on agreement for 20 more aircraft was signed, therefore the Russian flag carrier’s fleet will have 50 SSJ100s in it by 2017. **Aeroflot** will receive eight more new aircraft by the end of 2015.

Austrian Airlines has board approval to buy 17 used **Embraer** E195s to replace its fleet of **Fokker** F.70 and F.100 jets. The E195s will come from sister company **Luthansa CityLine** which will replace its jets with **Bombardier** CRJ900 NextGen jets from another **Lufthansa** subsidiary, **Eurowings**. The former **CityLine** E195s will enter **Austrian’s** fleet with an average age of four years, replacing **Fokker** aircraft with an average age of about 21 years. The E195s are in almost new condition and are list priced at nearly \$900 million. The first jet will be handed over in August 2015, after modification to **Austrian Airlines** standards, and it will be used for training purposes. **Austrian’s** first E195s will enter commercial services in January 2016. The 120-seat E195s will use about 18 percent less fuel per aircraft seat than the 80- to 100-seat **Fokkers**. This makes the **Embraer** jets much more environmentally compatible.

Turboprop Aircraft

ATR. **DAE Capital** leased one new ATR 72-600 (SN 1245) to **Azul Linhas Aéreas Brasileiras** in May. **Wings Abadi Airlines**, Indonesia, received one -600s (SN 1250) painted in a “50th ATR” paint scheme, even though it is the 41st ATR in **Wings’** fleet. **Alliance Air—Air India Regional** leased the first of three -600s (SN 1252) from **GECAS**. The other two will be delivered in 2015. All three aircraft are part of **GECAS’** existing order book with **ATR**. **Alliance Air** is a subsidiary of **Air India** and currently operates a fleet of nine aircraft to more than 25 domestic destinations.

Air New Zealand received its seventh ATR 72-600 (SN 1264) at the **Paris Air Show**, and the airline announced the purchase of an additional ATR 72-600 aircraft. Since 2011, **Air New Zealand** has purchased 14 ATR 72-600s. Deliveries of the **ATR** -600s will continue until 2017. Once delivered, **Air New Zealand** will have 11 ATR 72-500s and 14 ATR 72-600s in its fleet, making it one of **ATR’s** largest customers in the Asia/Pacific region.

Air Madagascar leased its second ATR 72-600 (SN 1248) from Irish leasing company, **Elix Aviation Capital**, in June. It leased the first -600 (SN1239) from **Elix** in March.

SATENA, the Colombian government-backed carrier, took delivery of its first ATR 42-600 (SN 1019) on June 19. The turboprop is the first of five -600s to be leased from Scandinavian lessor, **Nordic**

June 2015

Page 37 of 39

Aviation Capital (NAC). The airline leases eight ATR 42-500s from **NAC**, and operates them on flights throughout the South American country.

Bombardier. Two Dash 8Q-400NGs (SN 4493 & 4496) were delivered to **WestJet Encore** in May.

In June, Bombardier handed over of its 500th Q400 turboprop (SN 4500) to Calgary-based **WestJet Encore**. The milestone aircraft was one of 36 ordered by the airline's parent company **WestJet**, and the 22nd to be delivered. **WestJet Encore** was launched in June 2013 and now serves 24 cities in seven provinces with 114 daily departures. The airline continues to expand to Eastern Canada.

Antiques and Other Junque

Aircraft End-of-Life Solutions (AELS) purchased two A320-211 airframes from **Iberia**, and started to disassemble the airframes in Madrid in June. Both aircraft served **Iberia** and **Iberia Express** throughout Europe for 24 years. **AELS** will perform complete sustainable end-of-life processes for these two airframes, including disassembly and dismantling, aerospace materials recycling and component management. **AELS** will remove all components from the aircraft and will offer them to operators, brokers, PBH-providers and MROs, the company said.

Jet Midwest Group completed the acquisition of five 757-200s, three 767s, and five MD-80s from **American Airlines**. **Jet Midwest** has already placed all of the MD-80s and one of the 767. **Jet Midwest** said its "unique business model allows the remaining 757-200, 767-200 aircraft and RB211 engines to be sold, leased, converted to freighters, or dismantled for parts sales based on the demands of its customer base worldwide."

WORLDWIDE AVIATION MARKETING AND MANAGEMENT SERVICE

Air France will retire its five remaining 747-428s (SN 25600, 25601, 32868, 32869 & 32871) on January 11, 2016, when its last 747 arrives from Mexico City. The airline operates passenger 747s to Atlanta, Boston, Dakar, Mauritius, Mexico City and Toronto. The airline previously scheduled its last commercial flight for March 26. The latter three -428s in its fleet are leased from **ILFC**. The French flag carrier may retire a third of its 13 A340-300s earlier than planned due to the type's poor fuel economy. Its three oldest A340-311s (SN 029, 078 & 084) were delivered between September 1993 and August 1995.

Accidents and Safety

From Aviation Safety Foundation

Indonesian Air Force Lockheed C-130B Hercules (A-1310, SN 3616) operated by the **32 Squadron**, was destroyed when it crashed shortly

Federal Express permanently retired 15 aircraft and 21 related engines as part of its plan to rationalize capacity and modernize its aircraft fleet. They retired seven MD-11 airframes (12 related engines), three A300 airframes (three engines), four A310-300 airframes (three engines), and one MD-10-10 airframe (three engines). The financial impact of retiring these aircraft, engines and related parts was a non-cash impairment charge of \$246 million recorded in May 2015. **FedEx** also adjusted the retirement schedule of 23 more airframes and 57 engines. **FedEx** recognized \$30 million in cash charges associated with these actions in May 2015. These combined retirement changes will not have a material impact on near-term depreciation expense, the company said.

June 2015

Page 38 of 39

after takeoff from **Medan-Soewondo Air Force Base**, Indonesia, on June 30, 2015. The crew of 12 and 110 passengers were killed, as well as 26 people on the ground. Shortly after takeoff the crew radioed that they were returning to base. About two minutes later the aircraft impacted buildings, crashed and burned out. The Hercules was delivered in 1961, and was the seventh **Indonesian Air Force** C-130 to crash (six crashes were fatal). The air force had 16 C-130s in service before the crash. It is acquiring nine 25-year old C-130Hs from the **Royal Australian Air Force** to replace its oldest C-130Bs.

SCAT Air Boeing 737-322/W (LY-FLB, SN 24667) was damaged beyond economical repair in a ground fire at **Aktau Airport**, Kazakhstan, on June 16, 2015. The airplane arrived from Astana, and after the passengers disembarked and the airplane was serviced, a fire broke out in the forward fuselage. Airport firefighting services extinguished the fire. An airport worker claimed the fire was caused by an oxygen cylinder. The airplane was leased from **Q-Aviation**.

Three Trans Maldivian Airways Accidents. Two float-equipped **de Havilland Canada** DHC-6 Twin Otters (8Q-MAP, SN 571 and 8Q-TMG, SN 597) sustained damage in a water collision accident on June 11. 8Q-TMG was attempting to taxi away from the dock when its number 1 engine contacted and destroyed a large portion of the rudder of 8Q-MAP. 8Q-TMG's engine was also damaged. No one was injured in the incident. On July 2, **de Havilland Canada** DHC-6 Twin Otter float plane (8Q-MAN, SN 435) sank off Kuredu Island Resort, Lhaviyani Atoll, Maldives, following a landing accident. All 14 occupants survived the accident and were taken to the resort.

Indian Coast Guard Dornier 228 (CG-791) went missing over the sea during a surveillance mission on June 8. The three crew members are presumed to be dead. The aircraft took off from **Chennai Airport**, India, and was to fly up to the Palk Bay area. The 228 was last seen on radar 95 nm south of Chennai when flying at 9000 feet. The missing Dornier was built in 2014.

Airbus A400M Atlas (EC-403, SN 023) crashed near **Sevilla Airport**, Spain, on May 9. The crew tried in vain to regain control of three engines that froze due to a suspected software problem, according to details of investigations. **Airbus** said data and cockpit recordings showed that three of the four turboprop engines were stuck at high power settings shortly after takeoff, saying the three engines "did not respond to the crew's attempts to control the power setting in the normal way." Then pilots reduced power by setting the thrust levers to 'idle'; only to find that the power had frozen once again as they tried to increase it, **Airbus** added. Investigators have found that all other systems worked correctly. **Airbus** confirmed that the immediate area for concern was the A400M's engine control software. **Airbus** ruled out a major structural design issue, and focused attention on the quality of final A400M assembly work, but it did not say what kind of problem may have caused the engines to freeze. Investigators were looking at "the different processes around the assembly of the aircraft, the engines and the preparations for first flight," a spokeswoman said. **Airbus** started deliveries of new aircraft even though the investigations would continue for several more months. **Airbus** asked the A400M operators to carry out checks on the Electronic Control Unit, part of the digital system used to control the engines.

Singapore Airlines is investigating why one of its **Airbus** A330-300s temporarily lost power in both **Rolls-Royce** Trent 700 engines in mid-flight on May 23. The aircraft encountered bad weather between Singapore and Shanghai. "Both engines experienced a temporary loss of power and the pilots followed operational procedures to restore normal operation of the engines," **SIA** said in a statement. One engine returned to normal operations almost immediately, and the second was restored by putting the aircraft

June 2015

Page 39 of 39

into a controlled descent before climbing again, **SIA** said. No “anomalies” were found in the engine after the plane landed normally in Shanghai. **Rolls-Royce** is providing “support and technical assistance” to **SIA**, and **Airbus** is involved as well.

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.

SMALL TRANSPORT AIRCRAFT
A Catalog of New and Used Commuter / Regional Aircraft
2004
© AVMARK, Inc.

MARKET OVERVIEW

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

Airline Association (RAA):

Aviation:

DOT:

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
Boeing C-99	40
Boeing 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 728JET	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 Brasília	108
Embraer Regional Jet (ERJ) 135/140/145	112
Embraer 170	121
Metrol	124
Fokker 50	128
Fokker 70	132
Let 410/420	136
Saab 340	140
Saab 2000	144
Shorts 330	148
Shorts 360	152

ATR 42-300

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

Specifications	
Accommodations	
Passengers*	46
Pilot	2
Cabin Attendants	1
Powerplant	
2 Pratt & Whitney PW120 Turboprops	1,800 SHP / 1,342 kW
Hamilton Propellers	4 blades
Dimensions	
Length	74 ft 5 in
Wingspan	80 ft 7 in
Height	24 ft 11 in
Weight	
Empty	48,815 lb
Max Ramp	58,155 lb
Max Takeoff	53,510 lb
Max Landing	33,510 lb
Max Ramp	10,325 lb
Max Takeoff	9,920 lb
Max Landing	62,500 lb / sq ft
Max Ramp	10.23 ft/lb thrust

Price List

Years Built	Base (\$ mil)
85-99	3.0

Direct Operating Costs (\$ per block hour)

Utilization (Block Hours / Year)	
100	300

Average Stage Length (nm)

Flying Operations	
Flight Crew, Salaries / Expenses	\$198
Fuel, Oil, Taxes	\$173
Other	\$3

Aircraft Costs

Insurance	\$3
Maintenance	\$478
Depreciation	\$62
Rentals	\$318

Total Direct Operating Costs

Cost per Available Seat Mile - \$	12.33
Cost per Airplane Mile	\$5.67
Cost per Cost Block Hour	\$15.67

Note: Data from DOT airline filings.

ATR 42-300

PAYLOAD VS. RANGE

Range (nm)

Distance (nm)

ATR 42

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

The baseline aircraft is the ATR 42-300/320 powered respectively by PW120/121 engines. The latest version is the ATR 42-500 powered by PW127x engines and Hamilton six-bladed propellers. This increasing the payload to 12,015 lb and the cruise speed to 300 kts.

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

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

TYPICAL CABIN CONFIGURATION

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

US \$ 350.00

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

or
fill out the form attached to
this publication

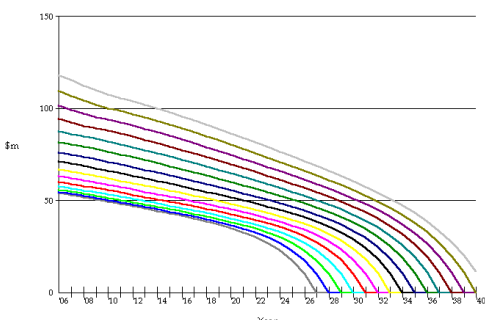
**Order your personal
copy of the 2015
TRANSPORT
AIRCRAFT VALUES
(TAV) today.**

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	80.17	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	59.70	63.28	67.55	72.51	78.04	83.62	89.35	95.84	103.47	111.66
2010	49.28	49.99	51.27	53.10	55.52	58.51	62.09	66.36	71.32	76.85	82.43	88.16	94.89	102.72	111.01
2011	48.06	48.78	50.06	51.89	54.31	57.30	60.88	65.15	70.11	75.64	81.22	86.95	93.68	101.61	110.00
2012	46.83	47.55	48.83	50.66	53.08	56.07	59.65	63.92	68.88	74.41	80.00	85.73	92.46	100.49	108.88
2013	45.59	46.31	47.59	49.42	51.84	54.83	58.41	62.68	67.64	73.17	78.70	84.33	91.06	99.09	107.48
2014	44.35	45.07	46.35	48.18	50.60	53.59	57.17	61.44	66.40	71.93	77.46	83.09	89.82	97.85	106.24
2015	43.11	43.83	45.11	46.94	49.36	52.35	55.93	59.20	63.47	68.50	74.03	79.56	86.29	94.32	102.71
2016	41.87	42.59	43.87	45.70	48.12	51.11	54.69	58.96	63.23	68.26	73.79	79.32	86.05	94.08	102.47
2017	40.63	41.35	42.63	44.46	46.88	49.87	53.45	57.72	61.99	67.02	72.55	78.08	84.81	92.84	101.23
2018	39.39	40.11	41.39	43.22	45.64	48.63	52.21	56.48	60.75	65.78	71.31	76.84	83.57	91.60	100.00
2019	38.15	38.87	40.15	41.98	44.40	47.39	50.97	55.24	59.51	64.54	70.07	75.60	82.33	90.36	98.75
2020	36.91	37.63	38.91	40.74	43.16	46.15	49.73	53.99	58.26	63.29	68.82	74.35	81.08	89.11	97.50
2021	35.67	36.39	37.67	39.50	41.92	44.91	48.49	52.75	57.02	62.05	67.58	73.11	79.84	87.87	96.26
2022	34.43	35.15	36.43	38.26	40.68	43.67	47.25	51.51	55.78	60.81	66.34	71.87	78.60	86.63	95.02
2023	33.19	33.91	35.19	37.02	39.44	42.43	46.01	50.27	54.54	59.57	65.10	70.63	77.36	85.39	93.78
2024	31.95	32.67	33.95	35.78	38.20	41.19	44.77	49.03	53.30	58.33	63.86	69.39	76.12	84.15	92.54
2025	30.71	31.43	32.71	34.54	36.96	39.95	43.53	47.79	52.06	57.09	62.62	68.15	74.88	82.91	91.30
2026	29.47	30.19	31.47	33.30	35.72	38.71	42.29	46.55	50.82	55.85	61.38	66.91	73.64	81.67	90.06
2027	28.23	28.95	30.23	32.06	34.48	37.47	41.05	45.31	49.58	54.61	60.14	65.67	72.40	80.43	88.82
2028	26.99	27.71	28.99	30.82	33.24	36.23	39.81	44.07	48.34	53.37	58.90	64.43	71.16	79.19	87.58
2029	25.75	26.47	27.75	29.58	31.99	34.98	38.56	42.82	47.09	52.12	57.65	63.18	69.91	77.94	86.33
2030	24.51	25.23	26.51	28.34	30.75	33.74	37.32	41.58	45.85	50.88	56.41	61.94	68.67	76.70	85.09
2031	23.27	23.99	25.27	27.10	29.51	32.50	36.08	40.34	44.61	49.64	55.17	60.70	67.43	75.46	83.85
2032	22.03	22.75	24.03	25.86	28.27	31.26	34.84	39.10	43.37	48.40	53.93	59.46	66.19	74.22	82.61
2033	20.79	21.51	22.79	24.62	27.03	30.02	33.60	37.86	42.13	47.16	52.69	58.22	64.95	72.98	81.37
2034	19.55	20.27	21.55	23.38	25.79	28.78	32.36	36.62	40.89	45.92	51.45	56.98	63.71	71.74	80.13
2035	18.31	19.03	20.31	22.14	24.55	27.54	31.14	35.40	39.67	44.70	50.23	55.76	62.49	70.52	78.91
2036	17.07	17.79	19.07	20.90	23.31	26.30	30.00	34.26	38.53	43.56	49.09	54.62	61.35	69.38	77.77
2037	15.83	16.55	17.83	19.66	22.07	25.06	29.32	33.59	37.86	42.89	48.42	53.95	60.68	68.71	77.10
2038	14.59	15.31	16.59	18.42	20.83	23.82	28.08	32.35	36.62	41.65	47.18	52.71	59.44	67.47	75.80
2039	13.35	14.07	15.35	17.18	19.59	22.58	26.84	31.11	35.38	40.41	45.94	51.47	58.20	66.23	74.63
2040	12.11	12.83	14.11	15.94	18.35	21.37	25.63	29.90	34.17	39.20	44.73	50.26	56.99	65.02	73.46
2041	10.87	11.59	12.87	14.70	17.11	20.10	24.36	28.63	32.90	37.93	43.46	48.99	55.72	63.75	72.29
2042	9.63	10.35	11.63	13.46	15.87	18.86	23.12	27.39	31.66	36.69	42.22	47.75	54.48	62.51	71.12
2043	8.39	9.11	10.39	12.22	14.63	17.62	21.88	26.15	30.42	35.45	40.98	46.51	53.24	61.24	69.85
2044	7.15	7.87	9.15	11.00	13.41	16.40	20.66	24.93	29.20	34.23	39.76	45.29	51.97	59.68	68.38
2045	5.91	6.63	7.91	9.72	12.17	15.16	19.44	23.71	27.98	32.25	37.78	43.51	50.20	57.90	66.41
2046	4.67	5.39	6.67	8.48	10.93	13.92	18.22	22.49	26.76	31.03	36.56	42.23	48.92	56.62	65.14
2047	3.43	4.15	5.43	7.24	9.69	12.68	17.00	21.27	25.54	30.81	36.34	42.01	48.70	56.40	64.87
2048	2.19	2.91	4.19	6.00	8.45	11.44	15.78	19.56	23.34	28.12	33.90	39.68	45.48	53.18	61.60
2049	0.95	1.67	2.95	4.76	7.21	10.20	14.56	18.34	22.12	26.90	32.68	38.46	44.26	52.06	60.33
2050	-0.29	0.43	1.71	3.52	5.97	9.73	13.50	17.28	21.06	25.84	31.62	37.40	43.18	50.96	58.69

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.: _____

