



# The UPM Market Informer

## GE Aviation Awarded \$437M Contract Modification for Adaptive Cycle Engine

GE was awarded a \$437 million contract modification from the U.S. Air Force Life Cycle Management Center (AFLCMC) at Wright-Patterson Air Force Base June 29th. The contract modification is for the execution of next generation adaptive propulsion risk reduction for potential air superiority applications.

“GE is excited to continue the maturation of adaptive cycle engines; it will enable revolutionary combat capability of future platforms,” said Dan McCormick, general manager of GE’s Advanced Combat Engine Program. “Three-stream adaptive cycle engines bring a generational change to what propulsion can provide as compared to legacy engines or potential upgrades to legacy engines. It will be a game changer in combat capability with unmatched improvements in range, thrust and heat dissipation capacity, critical to future mission requirements, while enabling upgrades in avionics and weapons.”

GE, along with the U.S. Air Force, has matured the enabling technologies and architectures of adaptive cycle engines through a series of highly-successful design and test activities in the Adaptive Versatile Engine Technology (ADVENT), Adaptive Engine Technology Development (AETD), and Adaptive Engine Transition Program (AETP) efforts. Between 2007 and 2017, GE successfully designed and tested multiple three-stream adaptive fan configurations, an advanced compressor rig, two full-scale core engines, and a full three-stream adaptive cycle technology demonstrator engine. GE’s understanding of adaptive cycle engines is based on this solid foundation of testing.

“Engine, component and core test data has validated the revolutionary capability afforded by this class of technologies and adaptive architectures. Our adaptive cycle engine design and test learnings over the past decade will be leveraged in this recent contract award,” Dan McCormick said. “We are proud and excited to be part of the U.S. Air Force team moving this new class of advanced propulsion forward towards eventual production and fielding.”

Source: GE Aviation



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## Aerospace Titans Boeing and Airbus top \$160 Billion in Orders at Farnborough

Boeing has defeated Airbus in the battle to win the most business at the Farnborough International Airshow, as the pair racked up commercial plane orders worth more than \$160 billion. It should be noted that all the prices quoted are the plane makers' official list prices with steep discounts likely to be negotiated by buyers. Additionally, the gross dollar number includes loose commitments to future deals and updates to previously agreed contracts.



The U.S. plane maker Boeing took the lion's share, inking deals over three days at the show in England that are worth more than \$97 billion. A memorandum of understanding between Vietjet Air and Boeing for the purchase of 100 737 MAX airplanes signed Wednesday marked one big order for the Seattle-based firm, with a list price exceeding \$12 billion. Other notable deals for Boeing include Volga DNER's commitment to buy 34 freighter planes, DHL's deal to buy 11 freighters and an almost \$10 billion contract for Air Lease Corp to buy 78 new Boeing aircraft. Two separate undisclosed customers accounted for a further \$23 billion worth of 737 MAX airplanes at list prices.

European aerospace firm Airbus may be behind Boeing, but has hardly been a slouch in winning new business. The Toulouse, France-based company has totaled around \$52 billion worth of list price deals. The principal win, coming from an undisclosed customer, is for 100 of its A320neo jets worth around \$11.5 billion. Other deals included a \$5.5 billion order from the new U.S. start-up airline being launched by the founder of Jet Blue, David Neeleman.

The big dollar numbers from both aerospace giants are not a true reflection of the real value of new income, according to Dhierin Bechai at analyst platform Seeking Alpha. In a daily tally of orders, Bechai has split the announcements into actual firm orders, letters of intent or memorandums of understanding, and "options" where customers convert older orders to reflect a new mix of airplanes. The aviation specialist said firm orders of Boeing aircraft by the end of day three was closer to \$17 billion, while for Airbus the number was near \$13 billion. In recent updates to their forecasts, Boeing expects 42,730 deliveries in the coming 20 years; Airbus is more conservative with 37,390.

*Source: CNBC David Reid Photo Credit Adrian Dennis, AFP/Getty Images*

## Price Increases for August

**Outokumpu Coil Americas announced the following price adjustments for all non-contract items in the USA and Canada beginning August 1, 2018:**

- ◆ Cold Rolled 200 Series will have their discount reduced by 2 total points
- ◆ Cold Rolled 301 will have their discount reduced by 2 total points
- ◆ A 72" wide price extra of .12/pound for all CR and HR items produced in Calvert, Alabama

## Airbus 'Beluga Whale' Takes Flight for the First Time

Airbus' BelugaXL made its first flight on Thursday, circling the skies over southwest France. The super-transporter is one of the largest aircraft in existence, six meters longer and one meter wider than its predecessor, the BelugaST transporter.

The flight, which took-off from Blagnac in Toulouse, signified the start of a 10-month testing period before the plane can start flying commercially. Typically, the Beluga series has been used by Airbus to transport aircraft wings from factories to its assembly lines in Europe. One wing factory is sited at Hawarden airport in North Wales. To allow the super-sized plane to land, Hawarden is erecting new blast furnaces and resurfacing its runway.

The announcement came soon after Airbus revealed the super transporter's new paint job, which was designed to represent its namesake, the Beluga Whale. The design was voted for in a poll by 20,000 people. Airbus said the aircraft is the first of five BelugaXL's to enter service during 2019.

*Source: Dylan Birlison, CNBC Photo Credit A. Tchaikovski/Master Films*



## Virgin Galactic Spinoff Orbit to Launch Rockets from the UK with Space Deal

One of Virgin's space companies is gearing up to launch rockets from the U.K. by 2021. Virgin Orbit, spun off from Virgin Galactic last year, has sealed a deal with the U.K. Space Agency to launch its LauncherOne rocket via Cosmic Girl, a modified 747-400 plane.

The deal, signed at the Farnborough Airshow in England, will see Cosmic Girl planes take to the skies from a spaceport at Newquay Airport in Cornwall, southwest England. Virgin said the agreement meant Orbit would be the first firm to operate flights to space from British soil.

Launches will be carried out horizontally rather than vertically. This means that the satellite-carrying rockets are launched from a plane flying horizontally rather than conventional liftoffs from the ground.

Newquay will be the second launch site for Virgin Orbit. It's primary testing site is located in California.



Virgin's billionaire founder, Richard Branson has been pushing toward space flight since 2004, when he created Virgin Galactic. It's a highly competitive industry, with the likes of Elon Musk's SpaceX and Jeff Bezos' Blue Origin also operating in the space.

Last week, Blue Origin said it would offer the first space rides for customers soon. Tickets for the riders are expected to cost between \$200,000 and \$300,000 each, according to a Reuters report. A report by Bank of America Merrill Lynch earlier this year forecast the space sector will be worth at least \$2.7 trillion in 30 years.

*Source: Ryan Browne, CNBC.com Photo Credit Adrian Dennis/Getty*



## Surcharge Totals May 2018— October 2018

|              | May     | Jun     | Jul     | Aug     | Sep     | Oct     |
|--------------|---------|---------|---------|---------|---------|---------|
| 15-5         | 0.5677  | 0.5769  | 0.6097  | 0.5897  | *       | *       |
| 15-7         | 0.8336  | 0.8410  | 0.8718  | 0.8335  | *       | *       |
| 17-4         | 0.5631  | 0.5713  | 0.6014  | 0.5803  | *       | *       |
| 17-7         | 0.6788  | 0.6959  | 0.7447  | 0.7137  | *       | *       |
| 201          | 0.5668  | 0.5778  | 0.6091  | 0.5871  | *       | *       |
| 301 7.0%     | 0.6725  | 0.6892  | 0.7367  | 0.7067  | *       | *       |
| 302/304/304L | 0.7334  | 0.7524  | 0.8048  | 0.7699  | *       | *       |
| 304-8.5%     | 0.7579  | 0.7781  | 0.8332  | 0.7959  | *       | *       |
| 305          | 0.9356  | 0.9641  | 1.0375  | 0.9834  | *       | *       |
| 309          | 0.9767  | 1.0052  | 1.0767  | 1.0223  | *       | *       |
| 310          | 1.3440  | 1.3892  | 1.4967  | 1.4086  | *       | *       |
| 316/316L     | 1.0288  | 1.0445  | 1.0930  | 1.0378  | *       | *       |
| 316LS/316LVM | 1.3700  | 1.3800  | 1.4200  | *       | *       | *       |
| 317L         | 1.2119  | 1.2258  | 1.2708  | 1.2053  | *       | *       |
| 321          | 0.7704  | 0.7918  | 0.8500  | 0.8103  | *       | *       |
| 347          | 1.0800  | 1.1014  | 1.5696  | 1.1199  | *       | *       |
| 409/409 Mod  | 0.2551  | 0.2251  | 0.2689  | 0.2728  | *       | *       |
| 410/410S     | 0.2642  | 0.2642  | 0.2775  | 0.2814  | *       | *       |
| 430          | 0.3169  | 0.3169  | 0.3280  | 0.3316  | *       | *       |
| 434          | 0.3997  | 0.3967  | 0.4019  | 0.4015  | *       | *       |
| 439          | 0.3283  | 0.3283  | 0.3387  | 0.3423  | *       | *       |
| 440A         | 0.3169  | 0.3169  | 0.3280  | 0.3316  | *       | *       |
| 2205         | 0.9831  | 0.9835  | 0.9953  | 0.9565  | *       | *       |
| 263          | 9.5493  | 10.2029 | 11.1034 | 11.7569 | 11.8171 | 11.6936 |
| 276          | 5.2620  | 5.6690  | 5.7616  | 5.8231  | 5.8395  | 6.0286  |
| A286         | 1.3667  | 1.5171  | 1.5406  | 1.6053  | 1.6528  | 1.7822  |
| 330          | 1.7052  | 1.8860  | 1.9053  | 2.0069  | 2.0861  | 2.2611  |
| 400          | 3.2672  | 3.5440  | 3.4534  | 3.6420  | 3.7841  | 4.1032  |
| 455          | 0.7800  | 0.8000  | 0.8300  | *       | *       | *       |
| 465          | 0.9400  | 0.9600  | 1.0100  | *       | *       | *       |
| 600          | 3.3635  | 3.6864  | 3.6633  | 3.8717  | 4.0371  | 4.3656  |
| 601          | 2.9180  | 3.1917  | 3.2043  | 3.3755  | 3.5110  | 3.7825  |
| 617          | 7.3342  | 7.8691  | 8.3732  | 8.7729  | 8.8389  | 8.8917  |
| 625          | 5.5352  | 5.8802  | 5.9397  | 6.0507  | 6.1228  | 6.3487  |
| 718          | 5.3154  | 5.5832  | 5.6130  | 5.7371  | 5.8290  | 6.0499  |
| X-750        | 3.9301  | 4.2455  | 4.2267  | 4.4293  | 4.5901  | 4.9101  |
| 825          | 2.3473  | 2.5689  | 2.6100  | 2.7003  | 2.7645  | 2.9375  |
| HX           | 3.4680  | 3.7769  | 3.8670  | 3.9584  | 4.0024  | 4.1715  |
| 188          | 21.3600 | 21.0200 | 19.8900 | *       | *       | *       |
| CCM          | 34.2600 | 33.8200 | 31.8600 | *       | *       | *       |
| L-605        | 26.0500 | 25.5300 | 24.0400 | *       | *       | *       |

\*Surcharge currently not available

### Boeing Warns on Pilot Shortage

- Boeing projects demand for pilots will rise 790K over the next 20 years
- The company says its increased outlook represents the most significant demand in its nine-year history of forecasting pilot demand. The projection is also double the current workforce.
- “Despite strong global air traffic growth, the aviation industry continues to face a pilot labor supply challenge, raising concern about the existence of a global pilot shortage in the near-term,” notes Boeing exec Keith Cooper.
- Boeing says it’s partnering with customers, governments and educational institutions to help ensure that the market is ready to meet this significant pilot demand.

*Source: Boeing Press Release, Reggie Dotson as told by SA News Editor, Clark Schultz*

### Tesla -4% After Pressing Suppliers for Cash

- Tesla CEO Elon Musk says only costs that apply to Q3 and beyond “will be counted” as part of its request to suppliers that they drop prices.
- Separately, the company says the request to suppliers is part of its normal procurement negotiations. Automakers such as Toyota have also used similar tactics.
- Shares of Tesla are down 4.33% premarket to \$300.00

*Source: SA News Editor, Clark Schultz*