



FOR IMMEDIATE RELEASE

Lockheed Martin and Arconic Collaborate on 3D Printing and Advanced Aerospace Materials: Companies Announce Two-Year Joint Development Agreement

Bethesda, MD & New York, July 16, 2018 – As part of an initiative to develop next-generation advanced materials and manufacturing processes, Lockheed Martin and Arconic, a global technology, engineering and advanced manufacturing leader, today announced a two-year Joint Development Agreement (JDA). Together, the companies will develop customized lightweight material systems and advanced manufacturing processes, such as metal 3D printing, to advance current and next-generation aerospace and defense solutions—including new structures and systems not currently in existence.

This agreement expands the longstanding relationship between Arconic and Lockheed Martin. The companies currently collaborate on advanced materials and manufacturing projects such as the development of process modeling, simulation tools and lightweight, corrosion resistant alloys. Arconic also supplies Lockheed Martin with a broad portfolio of innovative, multi-material products for the F-35 Joint Strike Fighter aircraft program—from engine to airframe structures—as well as 3D printed metal parts for service on NASA’s Orion spacecraft.

“At Lockheed Martin, we are relentlessly finding ways to develop materials that create state-of-the-art advanced capabilities, reduce waste and generate efficiencies in manufacturing practices,” said Rod Makoske, Lockheed Martin SVP of Corporate Engineering, Technology and Operations. “Collaborating with Arconic will help us uncover new ideas for materials development where traditional practices aren’t suitable, investigate more sustainable material compositions and find ways to produce materials more effectively.”

“We have a long history of innovative collaboration with Lockheed Martin across multiple platforms—from single-piece forged bulkheads for the F-35 to 3D printed parts for the Orion spacecraft—and we are pleased to expand on that relationship with this new agreement,” said Ray Kilmer, Executive Vice President and Chief Technology Officer, Arconic. “Lockheed is always innovating, and it is a privilege to apply our materials and manufacturing expertise to help them deliver their next generation of cutting-edge products.”

Arconic provides a range of high performance multi-materials and products for virtually every aero engine and airframe platform. The company’s solutions range from the world’s largest fuselage panels and wing skins, to 1/16-inch-diameter fasteners that hold an aircraft together. Arconic is a leader in additive manufacturing technologies for aerospace.

Lockheed Martin's newly released 2017 Corporate Sustainability Report details how innovative manufacturing techniques – like industrial 3D printing – can allow for greater resource efficiency, less materials used and potentially lower greenhouse gas emissions over the full life cycle of a part.

In 2017, Lockheed Martin made progress toward its goal of creating greater manufacturing efficiencies, including completing life-cycle assessments on three products, identifying total cost of ownership reductions of \$574 million from decreased resource consumption and impacts on human health and the environment.

Editor's Note: Caption for accompanying photo: Lockheed Martin and Arconic have entered into an agreement to collaborate on the development of advanced materials and manufacturing processes, such as 3D printing. Additive manufacturing promises lighter, better-performing parts—produced cheaper—such as the Arconic-designed, optimized aerospace bracket shown here.



About Lockheed Martin

Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 100,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. This year the company received three Edison Awards for ground-breaking innovations in autonomy, satellite technology and directed energy.

About Arconic

Arconic (NYSE: ARNC) creates breakthrough products that shape industries. Working in close partnership with our customers, we solve complex engineering challenges to transform the way we fly, drive, build and power. Through the ingenuity of our people and cutting-edge advanced manufacturing techniques, we deliver these products at a quality and efficiency that ensure customer success and shareholder value. For more information: www.arconic.com. Follow @arconic: [Twitter](#), [Instagram](#), [Facebook](#), [LinkedIn](#) and [YouTube](#).

Dissemination of Company Information

Arconic intends to make future announcements regarding Company developments and financial performance through its website on www.arconic.com.

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