

PHOTONICS IN DEFENSE & AEROSPACE

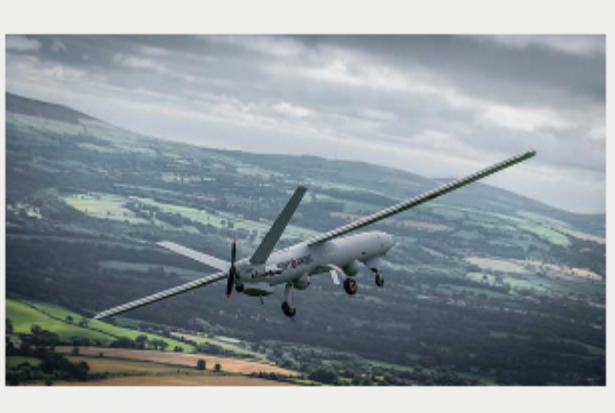


A quarterly newsletter presenting significant developments in the use of photonics in the vital defense and aerospace industries.

Defense & Aerospace News

Airborne Optics to See and Strike

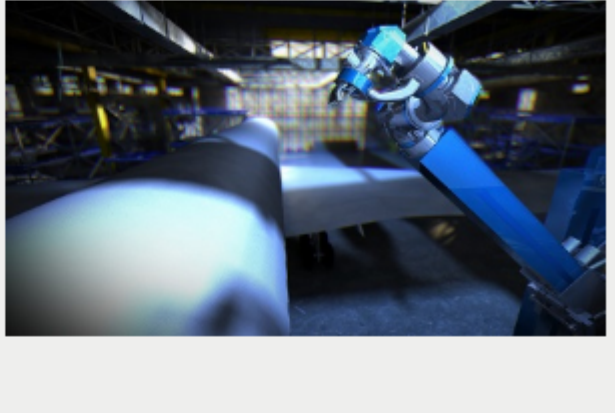
To keep in step with detector and laser system developments, the optical component industry is turning to innovations in materials and manufacturing. These must perform well — in size, weight, power and cost — to best develop aerospace and defense applications.



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Laser Coating Removal Robot for Aircraft

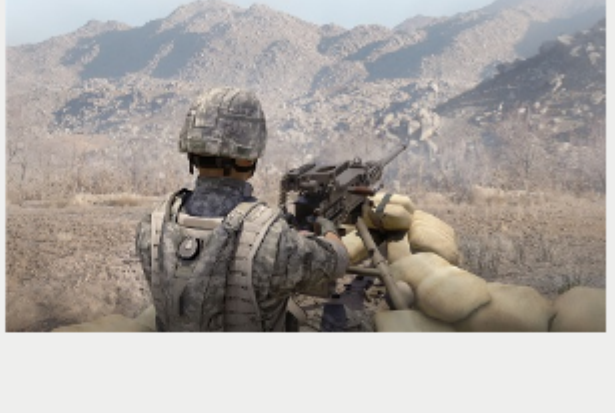
A robot equipped with a 20-kW CO2 laser will soon be removing paint from commercial and military aircraft, both big and small. The Laser Coating Removal (LCR) robot from LR Systems BV will allow a faster and cleaner removal process than previous methods and lead to less time on the ground for the aircraft.



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BAE Systems Provides Specialized Weapon Sights to Army

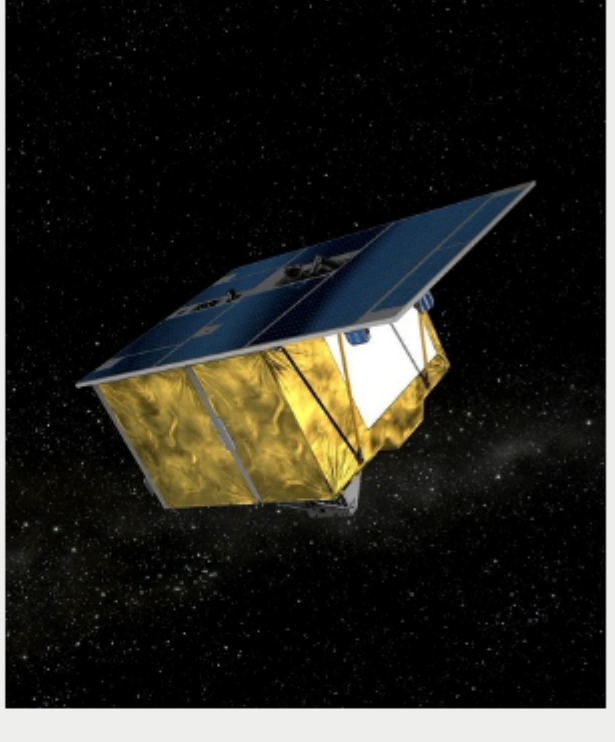
The U.S. Army has awarded BAE Systems a seven-year contract worth up to \$384 million to provide specialized weapon sights that improve soldiers' ability to quickly and accurately engage targets at extended ranges. The Family of Weapon Sights-Crew Served (FWS-CS) system uses high resolution sensors and lightweight laser range finders that wirelessly transmit weapon sight imagery to a helmet-mounted display in real-time.



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Berliner Glas Used for EnMAP Satellite

The Environmental Mapping and Analysis Program (EnMAP), a German Earth observation satellite mission, is using prisms from the Berliner Glas Group onboard the craft for laser communication in space. This mission will measure sun rays reflected from the Earth's surface over a wide spectral range. The spectrometers used deliver hyperspectral data from over 240 small channels of the continuous spectrum of visible light up to NIR and create a completely new level of quality for spectroscopic observation of the Earth.



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Sener, Thales Alenia Space Sign Business Agreement

Engineering and technology group Sener and space systems developer Thales Alenia Space have signed an agreement to execute a joint business plan that will develop the Spanish space industry with the manufacture of optical payloads.



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Federal Reserve Security Places Order for Guide Rod Lasers from LaserMax

Laser gun sight manufacturer LaserMax Inc. has received an order from the U.S. 4th District Federal Reserve Security Force for its Guide Rod lasers used in the security-force-issued Glock G17 and G19 pistols.

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Military EO, IR Systems Market Set for Growth

The military electro-optics and IR systems market is expected to reach \$14.20 billion by 2022, according to a report by MarketandMarkets. The market is currently valued at \$10.15 billion, with an anticipated compound annual growth rate of 5.75 percent.

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Alpes Lasers to Supply QCLs to U.S. Air Force Intelligence Project

Advanced light source developer Alpes Lasers SA has been selected as a supplier and developer of broadband quantum cascade lasers (QCLs) by several chemical sensing companies working on the Standoff Illuminator for Measuring Absorbance and Reflectance Infrared Light Signatures (SILMARILS) program.

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Featured Products

TOPTICA PHOTONICS

- Ultrafast Fiber Lasers
- Tunable Diode Lasers
- Terahertz Systems
- Frequency Combs
- Single-Mode Diode Lasers

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TA-FHG pro tunable laser

TOPTICA Photonics Inc.

The TA-FHG pro is a tunable, diode-based laser source in the deep UV spectral range. The system consists of an external cavity diode laser, a high power semiconductor amplifier (TA), and two cascaded second harmonic generation stages (SHG pro).

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Webinars

LAM Technology, Opportunities and Challenges

Thu, Jan 12, 2017 1:00 PM - 2:00 PM EST

Laser Additive Manufacturing (LAM) is one of the breakthrough technologies facilitating the transition from traditional subtractive machining to 3D printing. This webinar will provide you with a solid foundation in LAM and 3D printing, covering the advantages, possibilities and challenges of these cutting edge technologies. Wayne Penn, applied physics consultant and former president of Alabama Laser Systems, will draw on his considerable experience to provide you with unique insight into LAM and its potential uses in a range of industries, including aerospace.

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OLED Microdisplays: Advancing Virtual and Augmented Reality Smart Glasses

Thu, Jan 19, 2017 10:00 AM - 11:00 AM EST

Data glasses and wearables like fitness trackers are changing the way many of us live, as well as enhancing vision capabilities in industry and defense. In this webinar sponsored by Radiant Vision Systems, presenter Uwe Vogel, director of the Microdisplays and Sensors division at Fraunhofer FEP, will discuss the four categories of microdisplay technology, the primary attributes of a microdisplay and the technical challenges.

Vogel will address the delicate "balancing act" between microdisplay content and size, and why, in spite of their challenges, OLED microdisplays are the preferred choice for mobile devices. He will talk about near to eye (NTE) displays, the markets for these displays and the companies currently offering NTEs.

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