DIGITAL MEDIA SPOTLIGHT

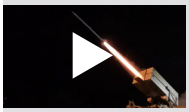
Check out AFRL careers, opportunities

From jet engines to GPS, great ideas have taken flight thanks to bright minds at the Air Force Research Laboratory.Where can you start innovating? Explore the many paths to employment, internships and fellowships with AFRL. **Read More**

Rotating Detonation Rocket Engine

AFRL's Rotating Detonation Rocket Engine program is developing more efficient, compact and stable combustor designs for liquid rocket engines. The technology development approach integrates the state-of-the-art modeling and simulation and experiments using high-performance computers. **Watch Here**

AFRL NASAMS Test



The National Advanced Surface-to-Air Missile System (NASAMS) is AFRL's response to near-term air defense for our nation and beyond. AFRL's Strategic Development Planning and Experimentation (SDPE) Office evaluated this low-cost, high-technology-readiness-level capabilities that could provide near-term air defense against cruise missiles. **Watch Here**

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TOP NEWS STORY

AFRL, PURDUE UNIVERSITY KICK OFF REGIONAL HUB NETWORK-MIDWEST PARTNERSHIP

WEST LAFAYETTE, IN — The Air Force Research Laboratory, or AFRL, partnered with Purdue University to kick off the Regional Hub Network-Midwest opening ceremony April 21, 2023, at Purdue University in West Lafayette, Indiana. "We're opening a network in the Midwest, where everybody is going to come together — academia, industry and government — to work on projects in energetics, hypersonics and microelectronics to push the state-of-the-art and the S&T [science and technology] transformational technology to the warfighter," said Monica Poelking, deputy chief technology officer, AFRL. And while this event marked the kick-off, Poelking said the collaboration has been in the works for more than a year. The Purdue University President Mung Chiang expressed his enthusiasm and added that this is a critical time for the country to remain ahead of the rest of the world as it faces geopolitical challenges. "We salute AFRLs visionary leadership in creating a unique new model ... with Purdue leading the Midwest and Cornell leading the Mid-Atlantic hubs," Chiang added. Chiang pressed the importance of the networks, stating this collaboration goes beyond just one university, but rather it is for the entire region. "This is the epicenter of hypersonic and energetic research, development and testing," Chiang added. **Full Story**

MEDIA ARTICLES

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US Today News
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PEOPLE OF AFRL

Gen. Duke Z. Richardson (far left), Air Force Materiel Command commander, presents the AFMC Airman of the Year Award to Staff Sgt. Jesse Reed, Air Force Research Laboratory, during the AFMC Annual Excellence Award Banquet April 5 in the National Museum of the U.S. Air Force at Wright-Patterson Air Force Base, Ohio. Airmen, military and civilian, from AFMC centers around the Air Force, as well as those assigned to Space Force, competed in nine categories and winners advanced to the Air Force level. Staff Sergeant Jesse Reed, a Bioenvironmental Engineering Consultant, United States Air Force School of Aerospace Medicine, Wright-Patterson Air Force Base, Ohio, bolstered the Air Force's Drinking Water Optimization project. **Read More**

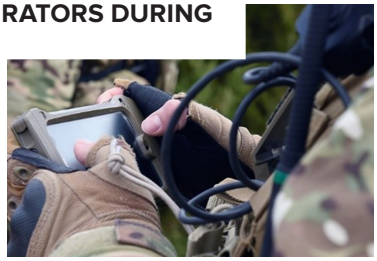
AFRL RE-UPS AFFILIATION WITH LONGTIME LIQUID CRYSTAL INDUSTRY PARTNER TO MEET DOD NEEDS

WPAFB, OH – Longtime Air Force Research Laboratory, or AFRL, industry partner AlphaMicron Inc., is utilizing a 2021 Ohio Federal Research Network, or OFRN, funding award to expand the capability of its patented guest host liquid crystal technology, called e-Tint, to electronically dimmable protective eyewear for the Department of the Air Force, or DAF, Department of Defense and commercial markets. The $1.35 million award, comprised of $900,000 from the state of Ohio and a $450,000 AlphaMicron, or AMI, cost share, enables AMI to apply emergent fundamental research toward the expansion of its e-Tint technology for the development of advanced sun protection devices for pilots and special warriors, as well as specialized laser protection film for civilian and military eyewear, said Principal Electronics

Engineer Dr. Darrel G. Hopper in the Airman Systems Directorate of AFRL's 711th Human Performance Wing. In its persistent mission to mature its technology and create advanced applications, AFRL has partnered with AMI — a global leader in liquid crystal-based light reactive technologies — since its founding in December 1996 as a spinoff of Kent State University's Liquid Crystal Institute, Hopper said. **Full Story**

AFRL TECHNOLOGY AIDS OPERATORS DURING AFGHANISTAN EVACUATION

ROME, N.Y. — Engineers from the Air Force Research Laboratory, or AFRL, refined a fielded tool called the Tactical Awareness Kit, or TAK, to aid operators in the fall 2021 Afghanistan evacuation. The kit has also been adapted to fit the missions of local, state and federal agencies in fighting wildfires and responding to natural disasters. TAK is a technology developed by AFRL scientists and engineers that has been transitioned to and used by numerous U.S. and international warfighters, including special operations and civilian users. As U.S. warfighters completed the main evacuation effort in Afghanistan in 2021, many Afghan allies and U.S. civilians still needed to get to safety. AFRL's Information Systems Division, part of the lab's Information Directorate at Rome, New York, employed the use of TAK to connect evacuees safely and securely with operators. "AFRL's unique



system ensured that only the sender and recipient could access the needed information for the extractions," said Capt. Landon Tomcho, an AFRL program manager. "Furthermore, the TAK system is already established in the operator community. The agile development principals integrated into the TAK ecosystem since its transition allowed the AFRL teams to apply their expert knowledge to rapidly create and employ a scenario-specific solution." **Full Story**