CONFERENCE READ AHEAD

Friday, July 16th, 2021 8:00AM to 11:00AM PDT via Microsoft TEAMS

DARPA and the Military Service Research Laboratories

DoD R&D 2022 Budget Update

Budget to Include 'Largest Evr' Research and Development Request, Aims to Deter China
Brian W. Everstine, Airforce Magazine (May 27th, 2021)
Research effort is to make sure that the U.S. has the ability to leverage quantum computing, to begin to leverage [artificial intelligence], space-based platforms.

DARPA

Meet New DARPA Director Victoria Coleman
Rachel S. Cohen, Airforce Magazine (November 20th, 2020)
Victoria Coleman, the new director of the Defense Advanced Research Projects Agency has spent most of her career outside of the Pentagon, looking in. A native of Greece, she's one of the few foreign-born people tapped to lead the military's secretive band of futuristic scientists.

DARPA: What is ERI?
Electronics Resurgence Initiative
The DARPA Microsystems Technology Office (MTO) Electronics Resurgence Initiative (ERI), initially announced in 2017, is a response to several technical and economic trends in the microelectronics sector. Among these trends, the rapid increase in the cost and complexity of advanced microelectronics design and manufacture is challenging a half-century of progress under Moore's Law, prompting a need for alternative approaches to traditional transistor scaling.

8 weird DARPA projects that make science fiction seem like real life
Harm Venhuizen, Military Times (September 4th, 2020)
What makes DARPA so unique is its ability to go outside the red tape of bureaucracy to innovate. DARPA isn't subject to the same acquisition rules as other agencies, which means it has fewer restrictions on the scientists and innovators it can hire and the salaries it can offer.

U.S. Military Research Laboratories

Agreement brings Soldiers, academia together to solve military challenges
U.S. Army DEVCOM Army Research Laboratory Public Affairs (June 8th, 2021)
Army scientists and engineers partnered with combat arms units to create closer working relationships between Soldiers and universities.

MDA: U.S. Aircraft Carriers Now at Risk from Hypersonic Missiles
U.S. Army DEVCOM Army Research Laboratory Public Affairs (June 7th, 2021)
Army researchers developed a pioneering framework that provides a baseline for the development of collaborative multi-agent systems.

Adding Predictability to Fleet Communications During Solar Flares
Paul Cage, U.S. Naval Research Laboratory Corporate Communications (June 15th, 2021)
Jeff Reep, an astrophysicist at the U.S. Naval Research Laboratory, published a paper, "Forecasting the Remaining Duration of an Ongoing Solar Flare" that describes a method he developed using a machine-learning algorithm that would allow some prediction to the fleet for how long an operationally-harmful solar flare might actually last.

Army researchers develop innovative framework for training AI
Sam LaGrone, USNI (June 15th, 2021)
U.S. aircraft carriers are already facing risks from hypersonic weapons that are now entering the inventory of American adversaries and the Navy has developed early defenses for the threat, the head of the U.S. Missile Defense Agency said last week before the Senate.

Air Force opens space war-fighting lab at Kirtland

Ryan Boetel, Albuquerque Journal (May 22nd, 2021)

A laboratory is being opened at Kirtland Air Force Base where scientists and engineers will do the cutting-edge research needed to build on the country's space war-fighting skills. The Air Force Research Laboratory's Space Warfighting Operations Research & Development Laboratory, or SWORD, will consolidate in the same site about 65 scientists, engineers and support employees who make up the Space Vehicle Directorate's Space Control Branch.

USAF Chief Scientist: DOD Needs More Hypersonics Experts, Testing Facilities

John A. Tirpak, USAF (December 17th, 2020)

There aren't enough experts or wind tunnel capacity for all the hypersonics development and testing currently underway, suggesting existing programs might need to be consolidated.