DARPA Demo Day 2016 Aims to Speed Transition of Game-Changing Technologies to Military Services

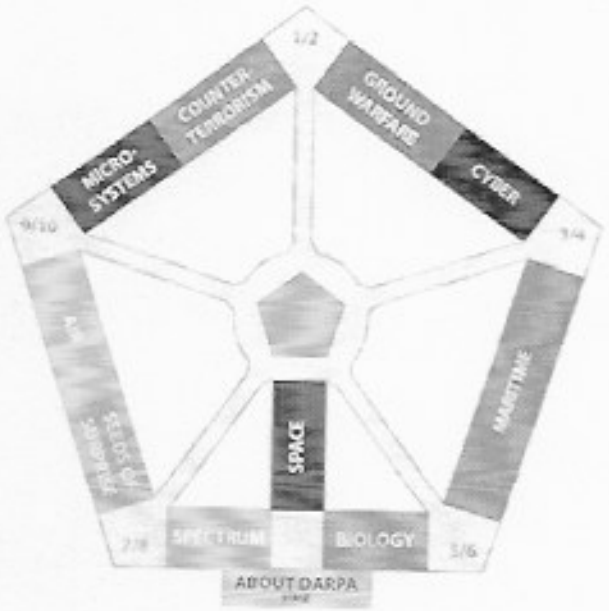
Pentagon event showcases more than 60 DARPA research programs—and the teamwork with the science & technology communities that make those programs possible

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DARPA DEMO DAY

BREAKTHROUGH TECHNOLOGIES FOR NATIONAL SECURITY



DARPA today is hosting DARPA Demo Day 2016 at the Pentagon, providing the Defense Department (DoD) community an up-close look at the Agency's diverse portfolio of innovative technologies and military systems. DARPA program managers and numerous academic and private-sector project leaders are demonstrating their ongoing work on more than 60 current DARPA programs. Filling the entire Pentagon Center Courtyard, the event is expected to be one of the largest of its kind ever at the Pentagon in terms of breadth of research and types of organizations represented, as well as the number of senior U.S. Government officials and general visitors attending.

For nearly six decades, DARPA has played a pivotal role in the DoD science & technology community, and in the larger U.S. technology ecosystem: to pursue extremely challenging but potentially paradigm-shifting technologies in support of national security. DARPA Demo Day highlights DARPA programs at various stages of maturity, including some whose products are already being adopted by the military Services and are already making a difference for warfighters; some that are advancing through the challenging technological frontier that separates the seemingly impossible from the doable—a stage of work that in many ways is the heart and soul of DARPA; and some that are in their earliest phases of development but whose potential to radically change the technological and security landscape is so great that they are already influencing the Department's strategic thinking.

"DARPA Demo Day is our chance to demonstrate the collective energy that not only propels DARPA but also invigorates people across the wide community with which we work—defense companies large and small, commercial startups and major firms, universities, government agencies and labs, and our close partners across DoD," said DARPA Director Arati Prabhakar. "It is a team that revels in the opportunity to attack pressing, nearly intractable problems—all in the context of public service.

Just as past investments in DARPA helped secure our Nation by repeatedly bending the arc of technological history, so today's investments will give rise to capabilities that will protect our Nation and project our interests for many decades to come."

DARPA's commitment to bolstering national security encompasses an extraordinary range of technologies and scientific domains, spanning dimensional scales from the atomic to the celestial, time scales from attoseconds to decades, spectral scales from radio waves to infrared to gamma rays, and—in its most recently created technical office—biological scales from genes and proteins to neurons and organs to infectious diseases and global health. DARPA Demo Day highlights strategic investments in 10 categories spanning all of the Agency's research focus areas:

- Air: Maintaining air superiority in contested environments through unmanned aerial systems, advanced hypersonics, improved human-machine collaboration, and supervised autonomy
- Biology: Developing breakthrough technologies to outpace infectious diseases, accelerate progress in synthetic biology, and explore new neurotechnologies
- Counterterrorism: Mitigating terrorists' capabilities through inventive reconnaissance, big data analysis, and technologies that advance understanding of social behavior
- Cyber: Protecting the data behind critical decisions through automated cyber-defense systems, hack-resistant software and networks, and real-time visualization of cyberspace
- Ground Warfare: Exerting control on the ground through manned and unmanned systems that bolster squad-level capabilities such as reach, situational awareness, and maneuverability
- Maritime: Enhancing maritime agility in all conditions through unmanned surface and undersea systems, novel communications and positioning technologies, and distributed capabilities
- Microsystems: Advancing communications, imaging, information processing, and physical security through revolutionary microelectronic, microelectromechanical, and photonic devices
- Seeds of Surprise: Expanding the technological frontier by applying deep mathematics, inventing new chemistries, processes, and materials, and harnessing quantum physics
- Space: Asserting robust capabilities in space through robotics, new launch systems, and satellite architectures, and groundbreaking technologies for space situational awareness
- Spectrum: Assuring dominance of the electromagnetic spectrum in congested and contested environments through new materials and tools, faster chips, and smarter, more agile mobile networks

A full list of DARPA Demo Day 2016 programs with summaries is available at http://www.darpa.mil/demoday.

Image Caption: *DARPA today hosted DARPA Demo Day 2016 at the Pentagon, providing the Defense Department (DoD) community an up-close look at DARPA's diverse portfolio of innovative technologies and military systems. DARPA program managers and numerous academic and private-sector project leaders demonstrated their ongoing work on more than 60 current DARPA programs. Filling the entire Pentagon Center Courtyard, the event was one of the largest of its kind ever at the*

Pentagon in terms of breadth of research and types of organizations represented, as well as the number of senior U.S. Government officials and general visitors attending. Click below for high-resolution image.

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