

How Would The Future Battlefield Look Like?

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The future battlefield is at the center of a new US Army study about the warfare over the next few decades. Soldiers can expect to see multi-domain threats, operations in complex terrain, hybrid strategies from the enemy and possibly face weapons of mass destruction.

The study, "The Operational Environment and the Changing Character of Future Warfare," was written by U.S. Army Training and Doctrine Command (TRADOC).

According to nationaldefensemagazine.org, TRADOC expects that between 2030 and 2050, significant breakthroughs in technology will ultimately lead to changes in the character of warfare.

TRADOC is watching 12 trends as it looks toward the future including: big data; power generation and storage; cyber and space; collective intelligence; technology, engineering and manufacturing; climate change and resource competition; artificial intelligence; human computer interaction; demographics and urbanization; increased levels of human performance; economic rebalancing; and robotics.

Through 2035, Russia is expected to be the United States' "pacing threat" and will likely be the most sophisticated adversary for some time, the report said. "In addition to a whole array of new weapons systems it has developed, Moscow has been studying and investing [in] technologies such as robotics, advanced computing, hypersonics, space systems and biological enhancements to human performance."

Eventually, however, China could overtake Russia as the United States' greatest rival as it continues to modernize its armed forces and develops new ways to approach warfare, the report said.

By the time 2050 rolls around, game changing technologies on the U.S. side will include laser and radio frequency weapons, swarms of drones, rail guns and synthetic biology, it said.

Gen. David Perkins, commanding general of TRADOC, said upon the release of the study:

"If you don't have a ... collaborative process, and very different ways of looking at things, your ability to look at the future really starts to more and more mirror your past," he said.

Perkins noted that the U.S. military must continue to push the envelope when it comes to technology development if it wants to stay relevant.

It is also necessary for the military and its allies to prepare for multi-domain battles, he said.

"Why would you limit yourself to just two domains?" he asked. "Let's take a look at all of the tools that we have available and all the domains."