Emerging Security Environment Requires Sophisticated Intelligence, Rapid Response, and Long-Range Capabilities

In light of the emergence of new nuclear powers and increased emphasis on countering terrorism and insurgency, RAND Project AIR FORCE (PAF) assessed the nature of future challenges to U.S. security and made modernization recommendations to the Air Force’s Quadrennial Defense Review Analytic Steering Group.

The military will continue primarily to defend the United States from direct attack and external threats, but the security environment has changed:

• Future adversaries in major combat operations (MCOs) will likely have more sophisticated warfighting capabilities and may have nuclear weapons. These put contemporary U.S. concepts and doctrine for power projection at risk and could plausibly leave the United States unable to achieve its objectives against its most likely state adversaries.

• The military’s support of counterterrorism, counterinsurgency, and nation-assistance (CTNA) will require developing specialized personnel and capabilities.

• Overseas presence will remain critical for shaping the security environment and providing a basis for responding to problems. Its nature will be determined more by the demands of CTNA than by MCOs. Credible threats of attack on host countries will make maintaining forward bases more difficult.

PAF highlights important priorities for the Air Force as it develops its modernization program:

Build an “Inform-and-Act” Infrastructure
The demand for timely, accurate intelligence—about adversaries, their capabilities, and terrorist activities, for example—will exceed anything in U.S. experience. The Air Force should identify how it can contribute to a revamped U.S. intelligence infrastructure. New investments in concepts, people, and equipment will likely be needed.

Work with Sister Services to Counter Adversaries’ Long-Range Fire Systems
U.S. forces face critical shortfalls in countering enemy ballistic and cruise missiles. The Air Force should pursue new concepts and capabilities in this area, especially in developing effective boost-phase missile defenses, which probably need to be operated at high altitudes or from space.

Field a Force Structure That Better Supports Long-Range Operations
Given emerging antiaccess capabilities and the time constraints imposed by fast-moving crises and conflicts, the Air Force should ensure that it has the right mix of forces for prompt, persistent operations from locations distant from the battlefield.

Explore Deep Cost and Capability Trade-Offs
The research also suggests altering Air Force modernization plans to emphasize the areas described above, perhaps spending less on attacking massed armor, fighting protracted air-to-air campaigns, deterring massive nuclear attacks, and killing fixed soft targets and investing more in long-range surveillance and strike platforms, ballistic missile defense, and CTNA specialists. Also needed are new concepts for locating, tracking, and attacking small, mobile targets and for providing persistent fire support for U.S. and friendly ground forces across the full spectrum of conflict.
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