Defining an Approach for Future Close Air Support Capability

John Matsumura, John Gordon IV, and Randall Steeb

www.rand.org/t/RR1233

Close air support (CAS) is about providing airborne firepower for troops on the ground who may be operating in close proximity to the enemy. For some time now, the Army has relied on Air Force A-10s to supply CAS for a variety of reasons. But partly out of concern about survivability in future conflicts, the Air Force now plans to retire the aircraft. This report examines the consequences for the Army and the alternatives it may wish to pursue.

RESEARCH QUESTIONS

• What virtues does the A-10 possess that have made it so useful in recent conflicts?
• How has CAS been used in recent conflicts? What are the concerns about the future?
• What CAS alternatives are available to the Army, given the Air Force decision to replace the A-10?

KEY FINDINGS

Close Air Support (CAS) Backs up Troops on the Ground and Affects Morale
• The A-10 operates at relatively low altitudes. It uses its 30mm cannons more frequently than any other weapon. These allow greater accuracy than bombs, which is of particular value when the troops being supported are in close proximity to the enemy.
• Low-flying aircraft are also highly visible. This boosts friendly morale and intimidates enemies.
• In recent conflicts, the air defenses have been unsophisticated, mostly consisting of small arms, rocket-propelled grenades, and some shoulder-fired missiles.

Other Assets that Perform the Mission, but There Are Drawbacks
• The USAF has other options for performing the CAS mission, including F-15Es; F-16s; B-1s; and, soon, the F-35A.

continued on back
• Attack helicopters could provide CAS, but are, like all aircraft, also vulnerable at low altitudes.
• Other alternatives include converting A-10s to remotely piloted aircraft or developing a specialized unmanned aerial vehicle for the purpose.

Costs Are an Additional Concern
• The Air Force expects to save about $3.7 billion over the next five years.
• But this does not account for the costs of conversions or alternative aircraft.

RECOMMENDATIONS
• Given the importance of close air support (CAS) to joint operations, future CAS requirements should be carefully reexamined in much the same way they were before the A-10 was developed.
• The current plan for CAS capabilities should be adopted if it can meet the CAS requirements that emerge from this process and if a cost-based analysis validates the cost reductions the Air Force envisions.
• However, if the plan does not meet future CAS requirements or would cost more than alternatives that provide similar CAS capabilities, the current plan for providing CAS should be reconsidered.
• Regardless of the outcome of the requirements reexamination process and the subsequent capabilities and cost-based analyses, we recommend fielding a viable replacement CAS capability before eliminating the capability the A-10 provides to minimize risk to ground forces.