

Why GAO Did This Study

The demand for UAS combat operation support has grown dramatically in the last decade. Since 2008, the Air Force has more than quadrupled its requirements for UAS pilots but faced challenges meeting the requirements due to UAS pilot shortages. Meanwhile, a 2015 Army review found that Army UAS units' mishap rate was higher than for other aircraft and Army officials stated that training shortfalls had contributed to the mishaps.

Senate Report 114-49 included a provision that GAO review Air Force and Army UAS personnel strategies. GAO assesses the extent to which the Air Force and the Army have (1) applied key principles of effective strategic human capital planning for managing UAS pilots and (2) evaluated the workforce mix to meet UAS pilot requirements. GAO compared its previously developed key principles of effective strategic human capital planning with Air Force and Army actions. GAO analyzed data on required and actual Air Force UAS pilots and data on Army UAS training.

What GAO Recommends

GAO's 11 recommendations include that the Air Force tailor its strategy to address UAS pilot shortages; the Army revise its strategy to address UAS training shortfalls; and that both services evaluate their workforce mix for UAS pilot positions and conduct analysis to ensure cost effectiveness of workforce decisions. DOD concurred with 2 recommendations and partially concurred with 9, noting actions that it believed addressed the intent of GAO's recommendations. GAO continues to believe that DOD needs to take actions to fully address the recommendations.

View [GAO-17-53](#). For more information, contact Brenda S. Farrell at (202) 512-3604 or farrellb@gao.gov.

UNMANNED AERIAL SYSTEMS

Air Force and Army Should Improve Strategic Human Capital Planning for Pilot Workforces

What GAO Found

The Air Force and the Army have not fully applied four of the five key principles for effective strategic human capital planning for managing pilots of unmanned aerial systems (UAS) that are important for resolving the Air Force's pilot shortages and the Army's training shortfalls (see table below). Consistent with the first principle, the Air Force involved top senior leaders, UAS pilots, and stakeholders to develop a plan to resolve its UAS pilot shortages—including reassigning UAS workload to Air National Guard units and supporting training and operations with contractors. The Air Force partially applied the second principle to tailor its strategy to address gaps, or shortages, in UAS pilots, such as by using temporary personnel. As of March 2016, 37 percent of the personnel filling UAS pilot positions are temporarily assigned manned-aircraft pilots. Air Force headquarters personnel stated that no other career field in the Air Force relies on temporarily assigned personnel to this extent. Without tailoring its strategy to provide more permanently assigned pilots, the Air Force risks losing the experience that temporarily assigned manned-aircraft pilots have acquired. The Army partially applied the second principle because its strategy is not fully tailored to address its shortages in unit training. The Army experienced training shortfalls—61 of 73 UAS units flew fewer than half of the 340-flight-hour per unit annual minimum training goal in fiscal year 2015. A Senior Army official acknowledged the continued training shortfalls was a concern for the Army. Without revising its strategy to address the remaining training shortfalls, the Army risks that its UAS units may continue to train at levels below Army goals.

Extent to Which the Air Force and the Army Applied Key Principles of Effective Strategic Human Capital Planning

Key principle	Air Force	Army
Involve Top Senior Leaders, Employees, and Stakeholders	●	○
Develop Strategies Tailored to Address Gaps in Critical Skills and Competencies	○	○
Monitor Progress toward Meeting Human Capital Goals	○	●
Build Capability to Support Human Capital Strategies by Using Flexibilities	○	○
Determine the Critical Skills and Competencies Needed	○	○

Legend: Applied ● Partially applied ○ Not applied ○

Source: GAO key principles (GAO-04-39); GAO analysis of Air Force and Army data. | GAO-17-53

The Air Force and the Army have not evaluated their workforce mix—that is the mix of military, federal civilian, and private sector contractor personnel—to determine the extent to which these personnel sources could be used to fly UAS. Furthermore, although neither the Air Force nor the Army have evaluated how and to what extent federal civilians could be used as UAS pilots, both services are using private sector contractors to fly some UAS. Without evaluating their workforce mix, the Air Force and the Army do not have information on alternatives for meeting UAS pilot personnel requirements to meet mission needs. In addition, although the Air Force and the Army decided to use private sector contractors to meet mission needs, they did not conduct cost analyses to inform this decision. Without such an analysis, the Air Force and the Army may not be using the most cost-effective workforces to achieve UAS missions.