

Twenty-One Years of Conflict: What's Next?

The United States has been threatened in the past—in the Cold War and in the Space Race—threats not only to American lives, but also to our ideology and to our position as a world power. The Soviet Union was able to manufacture technologies equal to ours in the Cold War and better than ours at the beginning of the Space Race. However, the Soviet Union did not conquer us; we did not admit defeat, and we eventually surpassed them in the Space Race by putting the first man on the moon. Today, the United States cannot stand in complacency but must continue forward in the advancement of our technology in the Air Force just as our country has stepped forward in the past. To maintain the United States' strength as a world power the Air Force must update and improve in two key areas: unmanned aerial vehicles (UAVs) and the cyber security involved in protecting the UAVs from the danger of hackers.

The United States already has UAVs or drones and has been using them for years in foreign missions and domestically to help with law enforcement agencies and in border control. The Air Force has used drones to hunt down suspected terrorists and kill them; however, many believe that these drone strikes cause more damage than they fix. For example, drone strikes may cause other people to hate the United States, and even become terrorists, because family members or friends could die or be injured in these strikes caused by the United States. The drones are already better than traditional weapons of war in limiting their damage to intended targets and buildings; however, they still cause collateral damage and can be improved in their accuracy and by minimizing the size of their strike to avoid innocent casualties. The United

States must increase in the accuracy of the drones to reduce the amount of collateral damage and the risk of new terrorists emerging.

Our drones do not only need to be more accurate, but they also need to have better cyber security. Cyber security is a problem that almost every company and individual faces every day; however, none of them control the deadly weapons that are controlled by the Air Force: UAVs. They are more than a regular computer, but they can still be hacked. Some hackers may glitch the GPS signal to make the drone think that it is already at its target or could control the motor functions of the drone. The risk of an unintended drone strike in our country or others is too great; therefore, the software and the hardware must change to negate these risks. There are two ways that can help solve this problem or at least deter the hackers: the use of a faraday cage and the invention of another computer language to program the drone with. A faraday cage would prevent electromagnetic signals from escaping and allow for the drone to be more difficult to catch a signal from by hackers. Inventing another programming language would allow for the drones to be nearly impossible to hack; however, a drawback of this is that it could take years to develop the language and reprogram each drone's software. Nevertheless, the protection of our people is of the utmost importance. Even if it takes a couple of years and money, the United States needs to continue to improve security to ensure safety for its people and their freedoms.

The United States has been fighting for twenty-one years, has been in many conflicts, and has always come out on top because of the technologies that Americans have developed and the way that they have applied their technology. However, the time may come when the United States finds its technology matched—as it was in the Cold War—and even outmatched—as it was at the beginning of the Space Race. To remain on top, the Air Force must continue to develop better technology. The result will be a secure America.