

Military Electric Vehicles

War & Technology

Technology and warfare have always gone hand in hand. Every technological boom in human history has been accompanied by a large percentage of the world being engaged in war. Today, renewable technologies are beginning to take their place on the battlefield. It is an odd pairing; clean energy and the destruction of war, but when one takes a look at how warfare takes place in the modern day, renewable energy makes a lot of sense.

Solar Power & Supply Lines

Solar power is a wonderful example of how renewable energy can be an incredible help on the battlefield. Firstly, if you have portable solar panels (which currently exist in a fabric like form) then you can power any of your electrical devices anywhere there is sun. Namely things like radios and Global Positioning Systems, two technologies that can mean the difference between life and death. The ability to power devices and vehicles in the field can significantly reduce the need for extensive supply lines.

Supply lines have been an integral part of warfare since mankind has been fighting on a global scale. For centuries, minimizing the amount of things that must travel along a supply line or chain has been a critical aspect of waging war successfully. Gaining an upper hand in battle can be directly linked to the amount of supplies traveling along supply lines. The less supplies one needs to move the less often one needs to make runs along the supply lines. The less often one needs to make runs the less likely one is to be attacked during said run. This can be the difference between victory and defeat.

Solar power can play a significant key in reducing the need for supply runs. This is especially true when solar power is paired with electric vehicles. Vehicles play a key role in modern warfare. The role they play and their significance is mostly self-explanatory. They increase mobility and speed on the battlefield. Troops and equipment can move rapidly from one place to another based on need. Plug-in hybrid and battery electric vehicles need little to no fuel in order to function. If they can be charged in the field then fuel is one less thing that needs to travel along a supply line.

Green Tech & Economics

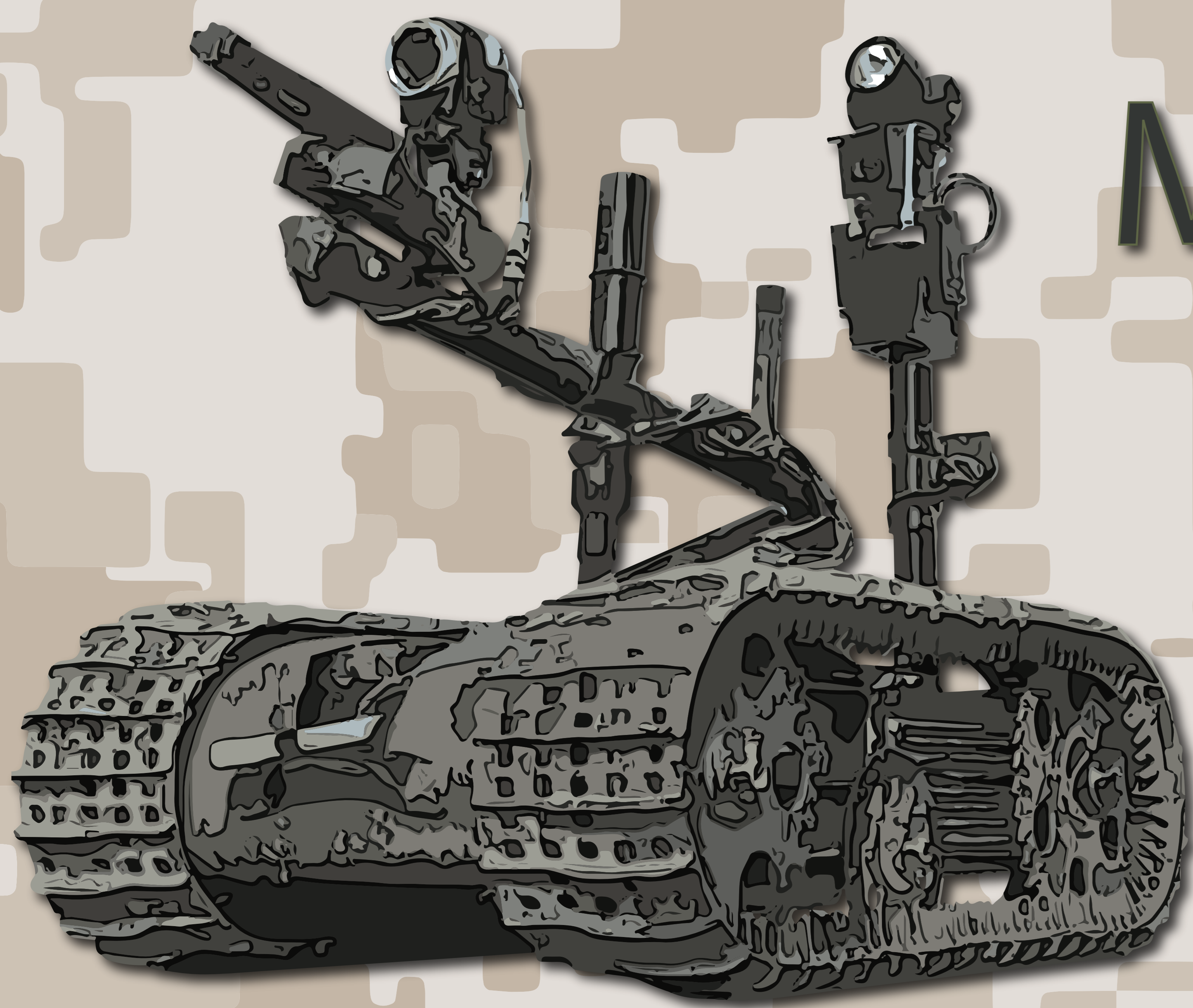
The other aspect of warfare that this touches upon is economics. Money plays a significant role in modern warfare. The more you have, or the more wisely one spends that money; the more likely one is to be victorious. Using renewable energy, managing your energy efficiently and taking advantage of cost cutting technologies like electric vehicles can make all the difference. The US military has been retrofitting military bases to be greener and more energy efficient for years. As they spend less and less on energy bills, more money can go to things like Kevlar vests for soldiers or research and development for loss of life prevention technologies.

Such technologies include Unmanned Aerial Vehicles and bomb disposal robots. Both of which are electric vehicles. The ways in which these technologies prevent the loss of life is fairly obvious, but the importance of them cannot be understated. The ability to do reconnaissance or execute aerial strikes without risking the life of a pilot or the ability to disarm and dispose of a bomb without putting anyone in harm's way are revolutionary breakthroughs in modern warfare that would not be possible without electric vehicle technology.

Benefits & The Future

The applications and benefits of electric vehicles in war does not stop there. EVs can be virtually silent and almost completely free of vibration. This is especially useful in a robot bomb disposal vehicle and vehicles used for surveillance or stealth attacks. Another significant advantage EVs have over ICEs is far simpler maintenance and repair. Damage to vehicles during battle and even during routine use is inevitable and repairs will need to be made. EVs have approximately 6 moving parts to their motors. There are over 100 parts in most ICEs that could potentially break. A repair taking 5 minutes instead of 10 could mean the difference between life and death.

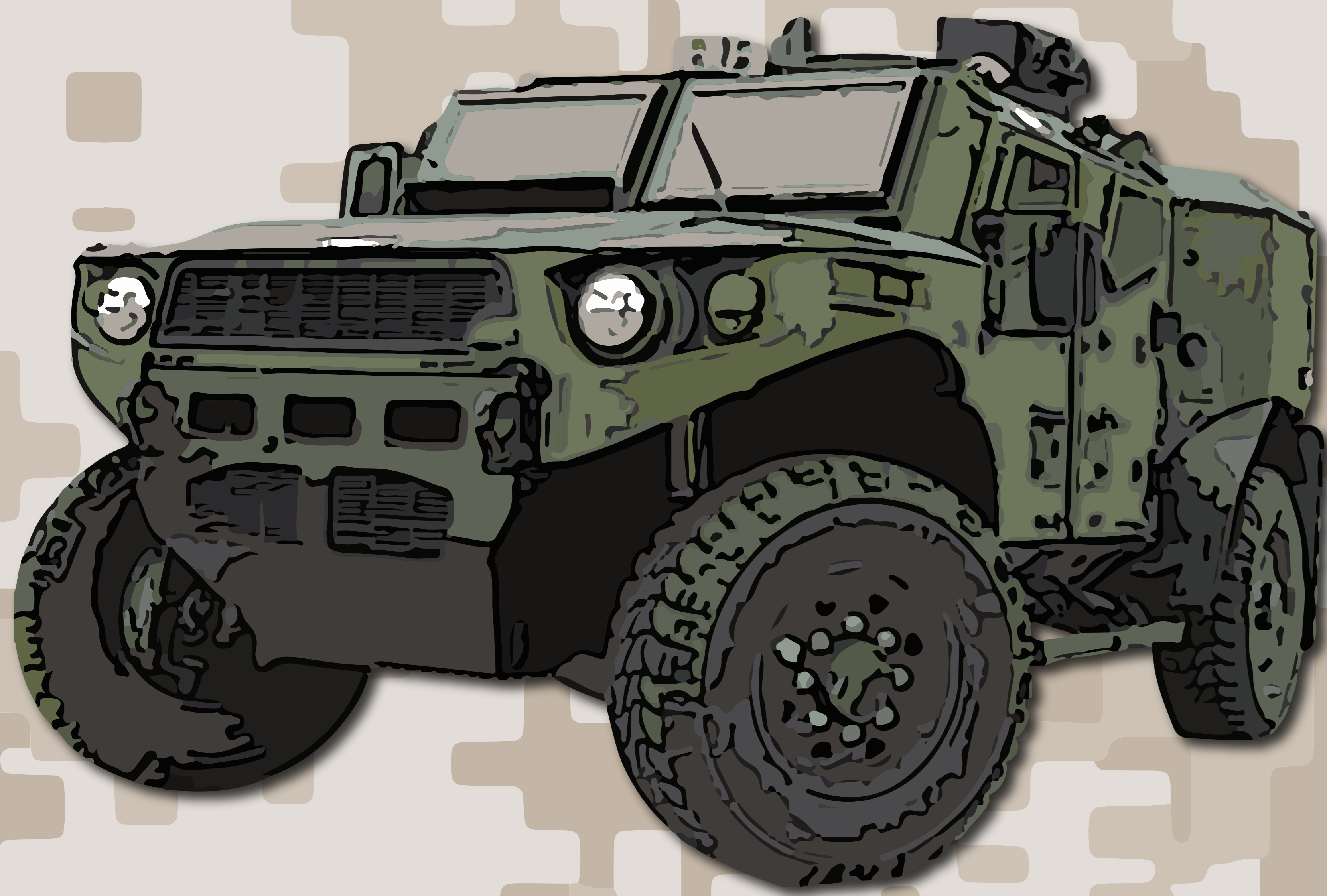
All this talk of renewable energy in the military is far from fiction. Many electric vehicles, solar energy and other renewable technologies are currently in use by the U.S. Military. According to IDTechEx projections: "1% of military vehicles are electric today, something near to 40% is likely by the end of the decade." The advantages of EVs for military use are undeniable. Expect to see them continue to change the face of warfare.



Bomb Disposal Robot



Unmanned Aerial Vehicle



Diesel Hybrid Electric
Ultra Light Vehicle



Electric Vehicle Institute