

# IRAQ WAR GEAR



► **Humvees**, which debuted during the Persian Gulf War as the celebrated modern version of the Jeep, were found to be far too lightly armored to protect the troops from hidden improvised explosive devices made from Iraq and Afghanistan military bombs and shells. First came improvised steel plates, then professionally designed retrofits for the undercarriages, doors and other vulnerable parts of the Humvees.



◀ Later in the Iraq war, Humvees were largely replaced with the newly designed, far more blast-protective **Mine Resistant Ambush Protected vehicles, or MRAPS**, which were deployed in areas most at risk from IEDs.

The campaign against IEDs also included concentrated efforts to research and deploy measures to detect, disable and jam the devices, which are often triggered by radios or cell phones. Everything from lasers to sound waves have been employed.

By Lee Bowman  
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As the 10th anniversary of the start of the war in Iraq nears, the history of the decade of combat there and in Afghanistan is not one of intense battles requiring large numbers of soldiers who need heavy air and artillery support.

Instead, much of the warfare was been defined by small-group actions and the constant threat of death or severe injury from bombs planted along roads or trails.

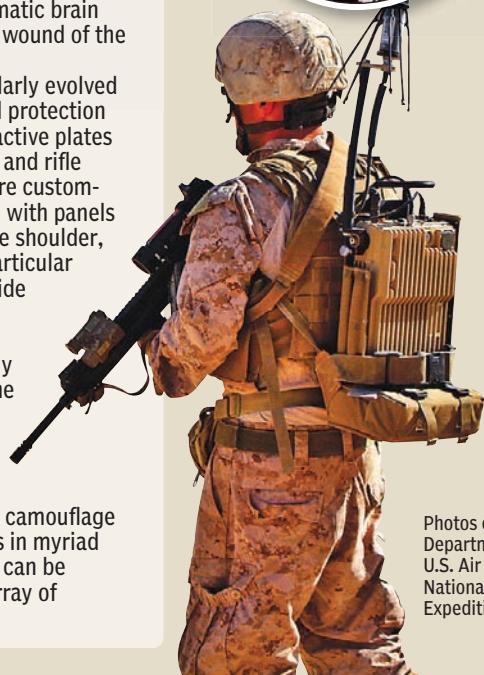
As the Pentagon realized U.S. troops were better equipped for more conventional battles, the military scrambled to adapt. The result was that many military innovations were developed or advanced during the course of the wars, including improved guided bombs, unmanned drones and more heavily armored vehicles.

Many of the more notable advances driven by the nature of the combat were ones dedicated to improving the personal safety and survivability of soldiers on the ground.

For instance, helmets were improved to better resist and cushion against blasts, and, over time, were outfitted with sensors to measure the force of an explosion, and help gauge the possibility of "traumatic brain injury," a signature wound of the wars.

Body armor similarly evolved from basic shrapnel protection to sophisticated reactive plates that can stop pistol and rifle bullets. The vests are customized and can come with panels added to protect the shoulder, side and groin (a particular concern with roadside bombs). With more women soldiers deployed than in any previous conflict, the Pentagon ordered the first armor designed specifically for the female frame. Even camouflage clothing now comes in myriad digital designs that can be customized to an array of terrains.

▼ **Soldiers' eyes** gained better protection as the wars progressed, with troops issued ballistic goggles to protect from shell fragments, as well as dirt, sand and other debris.



◀ **Jammers** have been mounted on vehicles (such as the bell-like cones attached to MRAPs), and infantrymen are issued hand-held and backpack jamming devices.

Photos courtesy of the Department of Defense; U.S. Air Force; Georgia National Guard; 379th Air Expeditionary Wing