

UAV: Unmanned Airborne Vehicle. What used to be called drones but now is a family of vehicles flying at various altitudes and with a multitude of sensors and missions

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C4ISR : Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance

Current Perspective

Within DOD most advances are being made not with platform improvements (airplanes, ships, tanks), but with improvements in C4ISR, Network Centric Warfare and Command & Control. These include C2 of UAV's both tactical and strategic even to the point that if an enemy shoots at a UAV there are acoustic sensors that detect where the sound came from and can slew the UAV and sensors to that location in real time and shoot back. In the Port Security area there are major initiatives in data base sharing among US Agencies (and coalition Partners) as well as implementation of rules based expert systems that assign threat levels to all cargo vessels entering US Ports. Thus the the Coast Guard knows which vessels to interdict, which crew members to interrogate, and what to look for. Other areas of significant activity include secure communications, encryption of cell phone voice and data, and ad hoc networking. The US Army also has a robust battery development program to make battlefield batteries and power sources small, better, lighter, and cheaper. Funding for R&D in the FY 08 Defense Budget is expected to be similar to the DOD FY 07 budget at about 8%.