



Strategic, Operational and Tactical Considerations for Lethal Autonomous Weapons Systems

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Military Rationale

Technological superiority and advanced military capabilities that offer the possessor of lethal autonomous weapons strategic, operational, and tactical advantage.

Sub Goals

- Assist or replace personnel in decision making, cognitive or motor intensive tasks
- Reduce or distract personnel to enhance the design and drive while continuously retaining the capability to pursue mission objectives and goals

Sub Goals

- Assist or replace personnel in decision making, cognitive or labor intensive tasks
- Reduce or eliminate personnel to exposure to danger and stress, while simultaneously retaining the capability to pursue mission objectives and goals



Strategic Doctrine

- AirLand Battle
- AirSea Battle
- Anti Access/ Area Denial (A2/D2)

Air

- Pros: expanded intelligence, surveillance, reconnaissance + strike capacity
- Cons: political scrutiny, high costs, interoperability, unintended or inefficacious effects from learning machines

Sea

- Pros: advantages in antisubmarine warfare, maritime security, surface warfare, joint operations, intelligence, surveillance reconnaissance, expanded standoff strike capacity
- Cons: Classification problems in maritime law; Duties to Rescue; perception and situational awareness; Testing and Verification

Land

- Pros: countermine operations; counter improvised explosive device operations, security/perimeter defense, defensive artillery/mortar/missile systems; light agile maneuverable ground vehicles
- Cons: Targeting & Military Objectives Problems compromising or making redundant command and control; Vulnerability to decoys/deception



Figure 1. Unmanned Vehicle Teams on the digital battlefield can act as a force multiplier if they have the autonomy and collaboration capabilities necessary to operate in teams without extensive human supervision.

Long-Term Strategic Considerations

1. Arms Races
2. Proliferation



