

Table 1. Potential DEW Uses in Combat

Defensive Applications	Type	Offensive Applications	Type
Negate rockets, artillery, mortars (RAM)	HEL	Long range strikes against high value targets*	HEL
Negate drones	Both	Short range strikes against high value targets*	HPRF
Cruise missile defense (for ships, bases, ports)	HPRF	Vehicle stopping (e.g., to capture leaders)	HEL
Aircraft self-protection against missiles	HEL		
Negate guidance of precision guided munitions	HPRF		
Vehicle and vessel stopping	HPRF		
Negate improvised explosive devices (IEDs) and unexploded ordnance	HPRF		
Negate ballistic missiles in the boost phase ⁸	HEL		

* High value targets include facilities for, e.g., command/control/communications, integrated air defense systems, chemical and biological agent production, munition production and storage, petroleum production and storage, etc.

Table 2. Some Current HEL Development Efforts¹¹

HEL Systems	Potential Targets	Nation	Company
HEL Mobile Test Truck	Rockets, artillery, mortars (RAM), drones	U.S.	Lockheed Martin (LM)
Surface Navy Laser Weapon Demonstrator	Cruise missiles, drones, small vessels	U.S.	Northrop Grumman / DRS
Self-Protect HEL Demo	Aircraft self-defense	U.S.	Air Force Research Lab
Low Power Laser Demo	Ballistic missiles in boost phase	U.S.	Missile Defense Agency
C-130 Laser Gunship	Ground targets	U.S.	USAF Special Operations Command
HEL Reaper	Ground targets, missiles, aircraft defense	U.S., Australia	General Atomics
Excalibur	Aircraft self-defense	U.S.	Defense Advanced Research Projects Agency
Dragonfire	Ship-based self-defense HEL	U.K.	MBDA, Qinetiq
HEL Defense Laser	RAM, drones	Germany	MBDA
Skyshield	RAM, drones	Germany	Rheinmetall
Iron Beam	RAM, drones	Israel	Rafael
Silent Hunter	Drones, lightly armored vehicles, etc.	China	Poly Technologies
Anti-satellite weapon	Satellites	China	?
HEL weapons	Unknown	Russia	?

Table 3. Some Current High Power RF Weapon Development Efforts¹²

HPRF Systems	Potential Targets	Nation	Company
Counter-Electronics HPM Missile Project (CHAMP)	Command & control facilities, chemical / biological agent production facilities, etc.	U.S.	Raytheon
Active Denial System	Personnel (deter hostile forces)	U.S.	Raytheon
RF Vehicle Stopper	Ground vehicles and vessels	U.S.	Naval Surface Warfare Center, Dahlgren, VA
Counter-IED Systems	IEDs	U.S.	Polarix Corp.
RANETS HPRF weapon	Cruise missiles, drones, aircraft	Russia	?
HPRF weapons	Convoy/object protection, car stopping, countering small unmanned aerial vehicles	Germany	Diehl Defence
HPRF defensive weapons	Motors of small vessels	U.S.	BAE
Anti-PGM HPRF weapon	Precision guided munitions	China	?
Recovery of Airbase Denied by Ordnance	Unexploded ordnance	U.S.	Parsons
HPRF weapons	GPS navigation signals, radio communications equipment, satellites	Russia	Radio-Electronic Tech Group, Moscow
Iron Beam	RAM, drones	Israel	Rafael
Silent Hunter	Drones, lightly armored vehicles, etc.	China	Poly Technologies
Anti-satellite weapon	Satellites	China	?
HEL weapons	Unknown	Russia	?