

U.S. Navy to deploy sea-based laser weapon

The U.S. Navy is preparing to deploy a high-power laser that can disable small enemy boats and shoot down surveillance drones. The prototype **Laser Weapon System (LaWS)** could be operational in summer 2014

LASER WEAPON SYSTEM (LaWS)

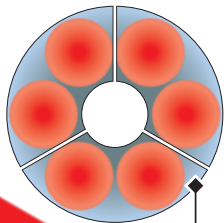
Radio frequency sensor
Provides range data

Tracking mount

Weapon consists of six laser beams that simultaneously focus on target. Power output around 100 kilowatts

Target tracking sensor

Beam director



Front view of beam director

Solid-state lasers
Below deck of ship, linked to beam director by fibre-optic cables

FLEXIBILITY

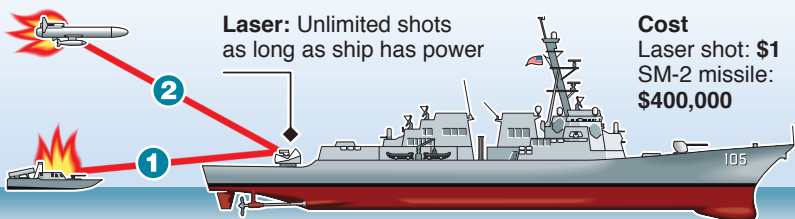
Laser output can be adjusted to:

- ▶ Provide visible warning shot
- ▶ Lock on to moving target to assist friendly heat-seeking missiles
- ▶ Disable optics of enemy missile or drone, rendering it useless
- ▶ Destroy target by burning it up

COUNTERING ENEMY THREATS

1 Small boats: Laser cannot be outrun. Beam tracks targets that try to evade by changing direction

2 Unmanned aircraft: Laser negates need to use more expensive missiles to shoot down small drones



Laser: Unlimited shots as long as ship has power

Cost
Laser shot: \$1
SM-2 missile: \$400,000

Deployment: LaWS temporarily installed on destroyer **USS Dewey** (above). System to become operational aboard amphibious ship **USS Ponce**