

# SALUTING COWTOWN

175-YEAR MILITARY LEGACY

...from frontier soldiers to space frontiers & more

## FACT SHEET

### Lasers

The military refers to lasers as directed-energy weapons and they are exactly what they sound like – opticals that emit highly focused energy to damage or incapacitate a target.

Weapons designed to cause temporary blindness, known as dazzlers, are used by military and sometimes law enforcement organizations. Incidents of pilots being exposed to lasers while flying have prompted aviation authorities to implement special procedures to deal with such hazards.



Laser weapons capable of directly damaging or destroying a target in combat are still in the experimental stage. The general idea of laser-beam weaponry is to hit a target with a train of brief pulses of light. The power needed to project a high-powered laser beam of this kind is beyond the limit of current mobile power technology, thus favoring chemically powered gas dynamic lasers.

Example experimental systems included MIRACL and the Tactical High Energy Laser, which are now discontinued. The Navy has tested the very short range (1 mile) Laser Weapon System or LaWS to be used against targets like small UAVs, rocket-propelled grenades, and visible motorboat or helicopter engines. It's been defined as "six welding lasers strapped together." A 60-kW system, HELIOS, is being developed for destroyer class ships as of 2020.

In development for roughly 20 years, their capabilities seem ever more promising. The need is there, as targets such as groups of small drones could become common in the future. Meanwhile, the technology has finally caught up to the concept – using fiber instead of chemicals means military lasers can be smaller and more powerful.

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