

Defense Department Invests Additional \$47 Million in High Energy Laser Scaling Initiative

On April 10, 2020, the Department of Defense selected General Atomics as a third prime contractor to join previously selected prime contractors Lockheed Martin, and nLight/Nutronics in building high energy lasers for the High Energy Laser Scaling Initiative (HELSI). Each developer will produce a 300 kW class high energy laser (HEL) source prototype with an architecture scalable to 500 kW or beyond, using a unique technology approach. The focus is on common, multi-Service/Agency needs for HEL (high energy laser) improvements.

In accordance with the [National Defense Strategy](#)'s focus on [modernization priority areas](#) such as Directed Energy, the HELSI Initiative funds advanced technology development for Directed Energy Weapons (DEW) aimed at translating technology solutions for broadly defined military problems into demonstrated performance payoffs such as increased supportability, increased affordability, and increased lethality. DEW systems have many potential advantages including speed-of-light time-to-target, high precision, deep magazine, low cost per kill, and reduced logistics requirements. HELSI supports the improvement of directed energy weapon capacity by focusing on increasing output power, refining energy delivery to targets, and developing efficient power and thermal management schemes. These advances will benefit high energy laser programs across the DoD.

Awards were made to the following:

- nLight/Photonics, \$48 million award: The performer will develop a 300 kW class HEL device based on coherent beam combined technology.
- Lockheed-Martin, \$83 million award: The performer will develop a spectral beam combined fiber laser prototype.
- General Atomics, \$47 million: The performer will develop a distributed gain laser prototype.

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