

## Air and Surface Target Support

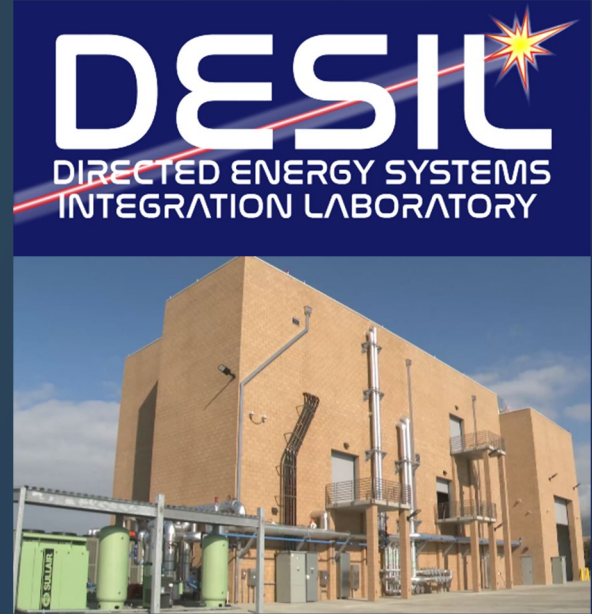
DESIL provides a venue for technology maturation and testing; and incorporating scenarios with threat representative targets.

Dynamic target resources are provided by Naval Air Warfare Center Weapons Division's Threat Target Systems Department and operated within line-of-sight from DESIL. Static beam profiling and power measurements are supported via a suite of on-site calorimeters.

A separate 400 sq. ft. target building along the Point Mugu coast will support alignments and engagements at 1 km. away from the DESIL rooftop.



**DESIL General Support**  
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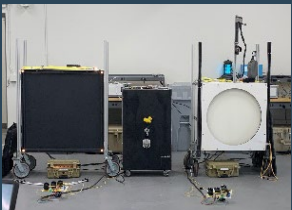


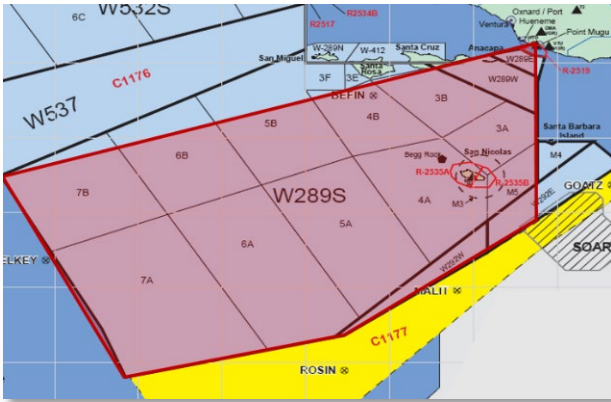
Naval Surface Warfare Center,  
Port Hueneme Division

Point Mugu Sea Range

### Mission

Provide in-service engineering, test and evaluation, and integrated logistics support for Directed Energy systems





*Approximate laser OPAREA based on air corridors*

### Sea Range Access

The 18,000 sq. ft. facility contains multiple staging and operational areas, including the Operations Control Room, high bay, equipment balcony, rooftop platforms and rear lot pads. The location allows 180-degree clear line of sight to the Point Mugu Sea Range (PMSR).

An extremely long OPAREA extends roughly 220 miles from DESIL to the western edge of PMSR, allowing for lasing above the horizon with no backstop required. PMSR has been designated a Special Use Space Range, minimizing laser inhibits due to satellite deconfliction. All equipment areas and lab spaces provide power, water and dry air for sustained system operation.

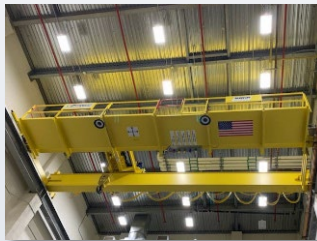


*Balcony access to range from third deck lab*

### Facility Resources

DESIL serves as the Directed Energy (DE) In-Service Engineering Agent (ISEA) lab with on-site DE logisticians, engineers, and technicians. The coastal DE facility has the ability to function as a surrogate ship platform with its rooftop lab, system support resources, and surrounding maritime environment.

Network connectivity includes NIPR, RDT&E, range-cueing, target video, range communications, Navy Continuous Training Environment, and Live Virtual Constructive integration. An onsite control room will allow operators communication with the system under test and dynamic target data throughout an event.



*CAT2 15-ton bridge crane*



*Water & dry air services*

### High Bay

The dual oversized roll-up doors permit pull-through access with system trailers, while the overhead bridge crane enables assembly and integration support in the high bay. Forklift and flatbed support is also available upon request.

The large interior provides ample space for equipment receipt and checkout prior to actual setup on the upper balconies, labs, or rooftop. Non-ruggedized equipment can be secured indoors prior to commencing operations.



*Solid State Laser-Technology Maturation System*

### Ongoing/Future Development

- Intelligence Surveillance Reconnaissance (ISR) & Tracking Algorithm Test Bed: Utilize on-site beam director to test new tracking algorithms against representative targets
- Virtual Test Environment: Provide improved combat system integrated development and testing
- Ship Motion Simulator: Positioned on rooftop to complete system immersion into an at-sea maritime environment
- Laser Weapon Console Simulator: Training environment for laser system operators
- DE Sustainment System: Implement upgrades, perform troubleshooting and train system maintainers/operators
- Tracking Gimbal: Rooftop gimbal with interchangeable payloads to provide data between DESIL and dynamic targets
- Atmospherics Characterization: Establish historical data set along the PMSR coast



*Maritime Laser Test Bed*



*BLS900*