



## Dahlgren Proving Ground (DPG)

### GOAL

*Accelerate the development and delivery of combat-ready tools to the warfighter by seamlessly integrating digital and physical assets within the Naval Surface Warfare Center Dahlgren Division (NSWCDD), across the Navy and other services into an agile and innovative hands-on Research, Development, Test and Engineering (RDT&E) environment.*

### Background

Amid increasing complexity and faster adversary capability deployment, NSWCDD is establishing a readily available live, virtual, constructive environment that allows our workforce and partners to be at the forefront of experimenting with new technological advancements meeting warfighter needs. The DPG leverages substantial long-term investments in laboratory, range infrastructure, and connectivity to enable prototyping, experimentation, and demonstration of critical technological solutions. It encompasses a wide array of domains, including artificial intelligence, machine learning, cyber engineering, virtual and augmented reality, modeling and simulation, quantum computing, and advanced algorithms. Through continued development and expansion, NSWCDD is committed to creating an environment that allows for quick reaction to emerging threats and capability gaps, providing a realistic test environment that can quickly inform a developmental technologies' ability to make an impact.

### Objectives

#### Organic Capability

In 2024, renovations to building 997 will update the existing range operations center and create a DPG operations center that will serve as the hub for executing DPG events. Investments include network infrastructure, physical layering switches, access to a cross domain solution, and improved network approval processes. These investments establish an enhanced digital infrastructure and enable the introduction of black box solutions into the DPG environment for testing with and alongside current DPG capabilities. Additionally, significant investments are being made in furthering DPG capabilities to include integration of new sensor

capability, increasing virtual representations of weapon system platforms, establishing a node for integrating autonomy and artificial intelligence capability into the live, virtual, constructive environment, and improving directed energy testing capability on the Potomac River Test Range. These investments create a robust environment better simulating real-world warfighting environments.

#### Workforce Development

NSWCDD intends to conduct DPG Advanced Capability Demonstration (ACD) events that blend government, academic, and industry technologies into real world scenarios, demonstrating advanced capabilities against real world threats. The events provide an environment for the workforce to gain hands-on experience in conducting end-to-end combat system integration. Testing new technologies alongside currently fielded systems offers a unique opportunity to understand and solve the integration complexities in a representative environment. In 2024, a diverse team from throughout the command will be pulled together to define the objectives and commence planning for the 2025 DPG ACD event.

#### External Collaboration

NSWCDD is leveraging partnerships with academia, industry, and DoD to build out the DPG. In 2024, the DPG team is exploring opportunities to expand connections with these partners enabling multi-domain/multi-lab testing. The team aims to build a robust network of regional and national partners, fostering a technological hub. Partnerships will build upon existing capabilities, foundational expertise, and resources to build out distributed live, virtual, constructive environments that are representative of warfighting domains.

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