



Naval Surface Warfare Center Dahlgren Division

DAM NECK ACTIVITY

STRATEGIC PLAN FY23 – FY28





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PREFACE

Naval Surface Warfare Center Dahlgren Division (NSWCDD) Dam Neck Activity (DNA) has delivered integrated warfare solutions to the warfighter for 60 years. DNA is an Echelon 5 Command, aligned to the NSWCDD Echelon 4 Command. DNA provided support to the November 2020 NSWCDD Strategic Plan, which focuses on the following technical, business and functional focus areas:

- Technical Thrusts
 - *Intelligent Automation*
 - *Software Engineering Revolution*
 - *Digital Engineering*
 - *Hypersonic Weapons Advancement*
 - *Information Superiority*
- Information Technology (IT) Modernization
- Workforce Development
- Communication
- Business

DNA is home to the Navy's cutting-edge Fleet training systems development, as well as resident experts in cyber and intelligence engineering, Fleet readiness and Fleet support operations across all Surface Navy Programs. The mission, vision and goals presented in this DNA Strategic Plan will drive our future focus on delivering and sustaining world class capability to naval and coalition warfighters. We must employ strategic thinking as an organization and enable a Fleet-focused entrepreneurial spirit in every employee to be national leaders in our business sectors. We want our organization to embrace speed of capability development, challenging widely accepted product development norms and enabling our employees to have the freedom and desire to solve problems and communicate solutions. We want our workforce to be empowered to make decisions. Having a clear understanding of the Command's strategic intent will enhance our ability to make the right decisions. As a guiding principle, the actions and decisions executed within the Command should always support the attainment of the vision presented in this plan. The Fleet is our ultimate customer, and we will deliver enhanced capability, lethality, capacity and connected products as tasked by our sponsors.

To shape the organization for the future, we must execute our business to the best of our abilities. We have identified goals to enhance our technical rigor, customer satisfaction, and overall effectiveness. We have recognized that improving our project management practices, administrative activities, exploring next generation work environment opportunities, and collaboration across our geographically distributed Command is critical to our success. Looking forward, we will build upon these successes to make an even

greater contribution to our naval capabilities and our nation's security through strategic science and technology investments across our portfolios: Intelligence and Cyber Technology, Integrated Training Systems and Combat Systems Readiness. We will fortify these technical portfolios with business acumen and technical rigor across projects, Science and Technology (S&T), finance, contracting, workforce development, and development environment and tools.

We will automate our governance processes to reduce costs, remove inefficiencies, and enhance required decisions. We will partner with innovators external to the Command to pursue our naval mission's success and meet national security needs.

We will collaborate across organizational lines, to ensure our resources are effectively managed, and capability delivered expeditiously. We will continue to build a diverse and inclusive workforce to ensure our people have the best intellectual experiences in developing the right technical solutions.

Executing this strategic plan takes a technically astute workforce. We will continue to invest in our people, which truly are our greatest asset. We will continue to recruit and develop the best and brightest, educate them and provide the best tools in support of their technical performance.

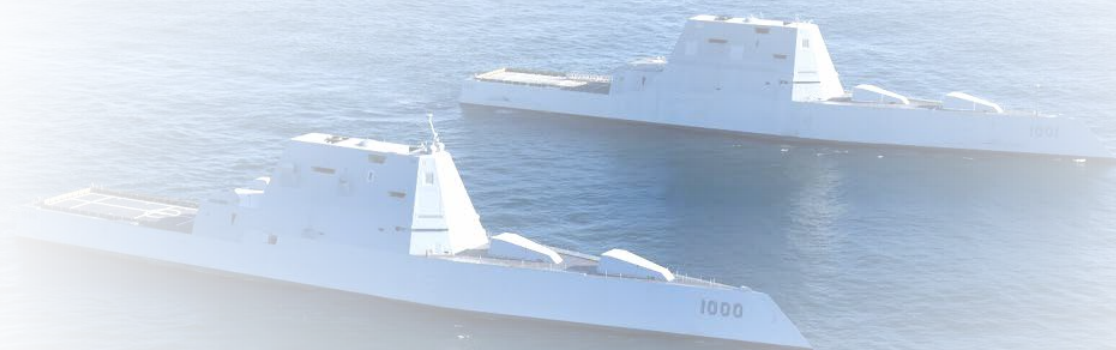
Finally, everything we do will align with our mission, vision, and Navy Core Values.



CDR Christina D. Carino, USN
Dam Neck Activity
Commanding Officer



David S. Richardson, SSTM
Dam Neck Activity
Director



*“We will leverage the capabilities of our laboratories
and expertise of our personnel to develop next-generation
and modernized warfighter solutions.”*



INTRODUCTION

The goals provided in this Strategic Plan are organized into technical and business Strategic Focus Areas (SFAs). The goals within each SFA align with the mission and strategic intent of Chief of Naval Operations (CNO) NAVPLAN 2022, Naval Sea Systems Command (NAVSEA) Campaign Plan 3.0, OPNAV N96 POM 25 Priorities, DNA future focus areas and Dahlgren Division.

Through this strategic alignment, the Command is better able to function administratively and technically within the Dahlgren Division and NAVSEA Enterprise. This strategic alignment also provides the foundation for effective project leadership and decision-making to ensure the work the DNA executes is in accordance with higher-level guidance and intent.

The goals presented in this plan are broad, long-term outcomes that provide a general direction for DNA to follow over the next five years. Nested beneath each goal are discrete objectives, decision-making opportunities, and action plans that define the strategic approach we employ to achieve the goals – which are contained in a separate Strategic Plan Playbook. The short-term action plans are living documents that are executed, reviewed by leadership and modified as required, to meet the goals.

STRATEGIC INTENT

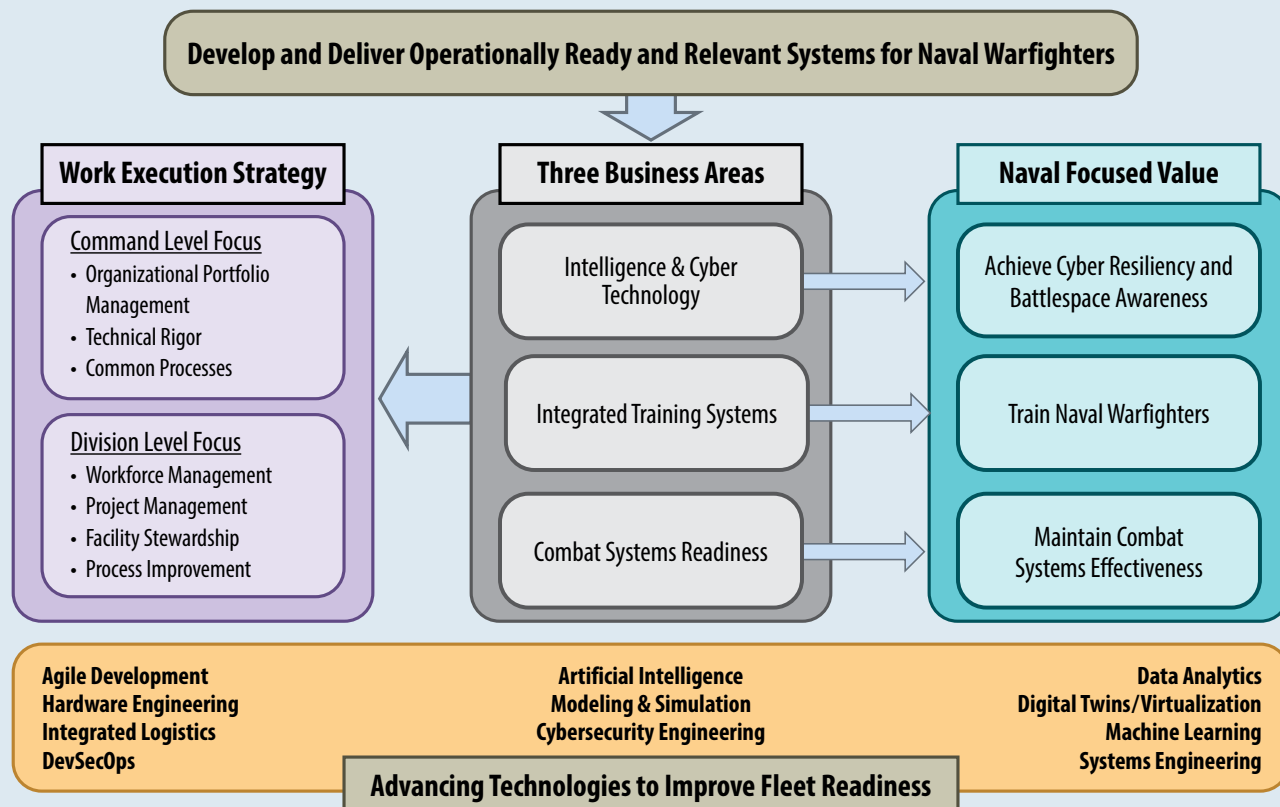
We will continue our growth as a **Research & Development** (R&D) organization. We will aggressively pursue opportunities to execute S&T and prototyping efforts for our business areas. We will increase collaboration across the Warfare Centers and our industry partners. We will cultivate and sustain new relationships with research-focused organizations such as the Office of Naval Research (ONR) and the Defense Advanced Research Projects Agency (DARPA). We will leverage the capabilities of our laboratories and expertise of our personnel to develop next-generation and modernized warfighter solutions, while positioning ourselves to rapidly support and sustain the Fleet.

We will make investments in our people and laboratories to enable our strategic thrust areas. Our thrust areas include:

- **Education** – Fundamental to everything we do is an educated workforce. We will pursue education for all levels for both technical and business operations. Advanced degrees are essential to grow our expertise. We will pursue Masters level degrees to enhance and refine our Systems Engineering expertise. We will pursue Doctoral level degrees to develop the scientists and engineers who will lead our growth in S&T research. Continuing education is critical to maintaining our skills at all levels. We will pursue courses that educate the workforce on emerging and advanced topics. Leveraging DNA's co-location in a Fleet concentration area, we will pursue increased opportunities to participate in at-sea periods, demonstrations and exercises in order to increase our understanding of joint, naval and coalition warfighter requirements.
- **Augmented Reality/Virtual Reality** – Augmented Reality (AR) and Virtual Reality (VR) technologies are reshaping our everyday lives. AR/VR are key enablers for the future of training systems, data displays, remote collaboration, visualizing system design, and more. We will continue to increase our AR/VR knowledge and capabilities. We will apply this knowledge and capability across our business areas to enhance warfighter performance and decision-making.
- **Artificial Intelligence and Data Analytics** – Artificial intelligence (AI) and data analytics are applicable across DNA technical areas. This includes radio frequency (RF) machine learning (ML), cyber defense, mining the data rich environment of both live and synthetic training events, measuring readiness, providing adaptable training options and predictive analytics to improve operational availability. We will aggressively pursue AI and Data Analytics-based technologies with our partners to empower decision makers and warfighters.
- **Software Factory** – Leveraging common, modernized software engineering processes organized as a software factory will result in improved cycle time, higher quality, and more rapid delivery of capability to the fleet. A software factory provides a construct for planning the migration to cloud computing and infrastructure improvements and drives our investment in software engineering workforce development. The software factory is intended to support the Navy's Compile to Combat in 24 Hours (C2C24) framework by enabling continuous integration & delivery (CI/CD), version control, automated testing, and code vulnerability analysis; enabling timely, low-risk deployments throughout the product development life cycle.
- **Remote Readiness** – Our ability to deliver, train and sustain operationally available systems is critical to supporting the Fleet. Our understanding of today's warfighting systems is key to improved capabilities for tomorrow. We will leverage emerging technologies and innovative approaches to increase operational availability through remote operations including delivering and installing software and other solutions, reducing or eliminating the need for time-consuming and costly travel and real-time training readiness feedback. We will strive to quickly resolve fleet problems globally through remote support and expertise.
- **Training** – Actively pursue innovative, cost-effective training solutions that address the Surface Forces Lethality Gaps (SFLG) by improving naval, joint and coalition individual, watch team, unit, and integrated force level warfighter and material readiness. Solutions will support naval forces ability to plan, conduct and sustain deployed operations across the competition/crisis/conflict continuum.
- **Digital Engineering** – The engineering environment has shifted to a digital construct. We will embrace the digital engineering environment by migrating to suites of connected digital tools. The connectivity of our tools will facilitate collaboration with external expertise and enhance our ability to instill systems engineering rigor and best practices into all of our products and services. Digital engineering will be a key enabler for the design and development of cyber resilient systems. A digitally connected engineering environment will accelerate our ability to solve warfighter challenges through rapid insertion of capabilities to meet emerging threats.

ABOUT US

DNA is headquartered in Virginia Beach, Virginia. DNA performs cutting-edge Research and Development (R&D), and warfare systems design and integration to ensure warfare systems superiority for the warfighter. DNA's dedicated workforce is comprised of around 500 employees including more than 40 employees at various offsite locations, supporting the warfighter from fleet concentration areas nationwide. DNA is organized into three Divisions, each with a focus on a specific business area, targeted towards developing and improving operationally ready systems and platforms for our naval warfighters.



MISSION STATEMENT

To be a recognized R&D and Engineering national leader developing innovative, affordable, and effective threat-driven integrated training systems, cyber warfare, Fleet readiness and sustainment solutions for the naval warfighter.

We will deliver this mission across our business and following technical portfolios:

- Intelligence and Cyber Technology
- Integrated Training Systems
- Combat Systems Readiness

VISION STATEMENT

Defeat all current and future national threats with cyber resilient tactical and training systems fortified with exemplary Fleet readiness.

STRATEGIC TECHNICAL THRUSTS

TECHNICAL THRUSTS

INTELLIGENCE & CYBER TECHNOLOGY



This technical thrust area is focused on solutions created through research, development, and fielding of advanced technologies in support of naval intelligence and cyber mission areas. Primary areas of work include Maritime Intelligence systems development and installation, Cybersecurity Engineering, and Cybersecurity Test and Evaluation. Intelligence & Cyber Technology transitions advanced intelligence collection and cybersecurity technologies to ensure that our naval force is cyber secure and will never face the threat of a fair fight.

INTEGRATED TRAINING SYSTEMS



This technical thrust area is focused on designing, developing, and sustaining training systems for the naval, joint, and coalition warfighters. This includes strengthening the current and future Fleet warfighter readiness of surface shipboard and shore based integrated training systems via Battle Force Tactical Trainer (BFTT), Advanced Training Domain (ATD), Internal Training Domain (ITD), Joint After Action Review (JAAR), Data Collection & Debrief (DCD), school-house trainers, Virtualized Adaptive Learning Engine – Maintenance Training (VALE-MT), Surface Training Advanced Virtual Environment-Combat Systems (STAVE-CS) Part Task Trainers (PTT) and Virtual Maintenance Trainer (VMT), Office of Naval Research (ONR) technology exploration and experimentation, Ready Relevant Learning (RRL) Distributed Individual Training, Cyber Joint Information Operations Range (JIOR), Wargaming, and Live Virtual Constructive (LVC) technology engineering. ITS provides the application and use of advanced technologies and innovative cost

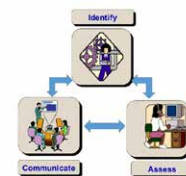
effective solutions, products, and services to ensure that training capabilities meet the challenges of today and the threats of tomorrow across the competition, crisis, and conflict continuum.

COMBAT SYSTEMS READINESS



This technical thrust area is focused on providing research, development, testing, installation, modernization, sustainment, and Fleet readiness solutions for Surface Navy Combat Systems. Program areas include Ship Self-Defense System (SSDS), Sensor Distribution Systems (SDS), Surface Anti-Submarine Warfare (ASW) Systems, and Enterprise Configuration Management. Combat Systems Readiness engineers, delivers, and sustains Combat Systems solutions enhancing readiness and accelerating capabilities to the Warfighter.

SCIENCE & TECHNOLOGY



This technical thrust area supports the Mission and Vision of the Command by meeting the technology development and technology adoption needs of our technical work. We conduct basic and applied research and advanced technology development, develop partnerships with universities and industry for mutual benefit, sustain and grow a culture of S&T in the workforce, and maintain a fleet focus through S&T transitions while addressing unmet technology needs of operational and type commanders through the Science Advisor program.



MISSION & VISION STATEMENTS AND GOALS



NSWCDD DAM NECK ACTIVITY (DNA) VISION STATEMENT

Defeat all current and future national threats with cyber resilient tactical and training systems fortified with exemplary fleet readiness.

INTELLIGENCE & CYBER TECHNOLOGY DIVISION

Mission Statement: Enhance the Navy's readiness by providing superior intelligence data collection systems and ensuring shipboard and shore-based networks are cyber secure.

Vision Statement: A full-spectrum cybersecurity and maritime intelligence systems provider enabling the rapid transition of science and technology from the lab to the warfighter.

GOALS:

1. Develop, integrate, and deliver advanced Signals Intelligence (SIGINT) technologies.
2. Employ emergent technologies and prototyping capabilities to demonstrate and transition improved intelligence and cyber capabilities.
3. Enhance our current capabilities to become a full-spectrum Build-Attack-Defend cybersecurity solution provider.

INTEGRATED TRAINING SYSTEMS DIVISION

Mission Statement: Design, develop, deploy and sustain integrated training and readiness systems for the naval, joint, and coalition warfighter ensuring capabilities meet the challenges of today and tomorrow's threats through technologically advanced and cost-effective solutions.

Vision Statement: To be a recognized leader in training solutions across the naval, joint, national, and coalition military domains.

GOALS:

1. Lead the engineering and development of Naval Surface and Expeditionary Warfare training systems for emerging and fielded warfighting capabilities and threats.
2. Leverage emerging technologies and techniques such as adaptive learning, Artificial Intelligence (AI), Machine Learning (ML), Augmented Reality (AR)/ Virtual Reality (VR) to advance training capabilities that enhance warfighter lifelong learning and proficiency.
3. Expand our robust S&T engineering capability to enable development and implementation of AR/ VR technologies, data analytics, AI, ML, and other emerging technologies in order to increase the realism and effectiveness of naval training.



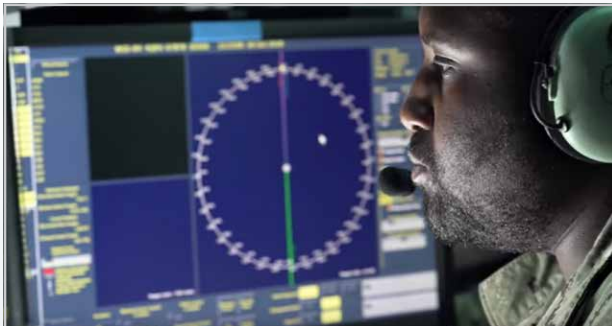
COMBAT SYSTEMS READINESS DIVISION

Mission Statement: Engineer, deliver and sustain Surface Navy Combat Systems solutions enhancing readiness and accelerating capability to the warfighter.

Vision Statement: Be a recognized leader for Future Surface Navy Integrated Combat Systems Readiness.

GOALS:

1. Establish DNA as the Secure Common Operating Environment Provider for Surface Navy Combat Systems.
2. Increase Fleet readiness and reduce delivery time of capability & modernization enhancements for Surface Navy Combat Systems.
3. Provide Surface Navy Combat Systems support to enable distributed testing capability on the Eastern seaboard and enhanced readiness of systems to the Fleet.



SCIENCE & TECHNOLOGY

GOAL:

Achieve S&T Fleet transitions through application of technologies to include AI, data analytics, AR, cyber defense technologies, digital engineering (model based system engineering (MBSE), model based product support (MBPS)), learning management technologies, readiness measurement, and software factory technologies while sustaining the S&T culture which has been developed.

“Great Power Competition is threatening our nation’s collective security by undermining the free and open conditions at sea and shrinking our technical and tactical advantage. NAVSEA’s vision and mandate to expand our Navy’s competitive military advantage over our competitors remains unchanged!”

– NAVSEA Campaign Plan to Expand the Advantage 3.0



SUMMARY

This Strategic Plan defines a vision for DNA that documents goals and objectives to be achieved over the next five years. Each objective has a detailed action plan that will be reviewed by leadership at least quarterly to ensure the organization is on track to achieving our goals. This plan allows us to capitalize on our existing strengths in a flexible manner and shape our workforce to support the future Navy. We have clearly defined a set of visionary goals allowing our workforce to think strategically about the work they do. Our team will institutionalize these principles, goals and objectives in focused organizational rigor across project, technical and business acumen. This plan is a living document to which the organization will govern to achieve the defined goals. Periodic evaluations will be conducted to ensure the organization remains in alignment with higher-level intent and adapts to our external environment.



NSWCDD DAM NECK ACTIVITY



INTELLIGENCE & CYBER
TECHNOLOGY

INTEGRATED TRAINING SYSTEMS



COMBAT SYSTEMS READINESS

SCIENCE & TECHNOLOGY





**NAVAL SURFACE WARFARE CENTER DAHLGREN DIVISION
DAM NECK ACTIVITY**

The Leader in Readiness & Training Systems