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Providing Advantage to Future Force Through Science and Technology

"The primary goal of the Naval Research Enterprise is to ensure our Sailors and Marines maintain current and future technological advantages over potential adversaries."

– Rear Adm. Nevin P. Carr Jr., Chief of Naval Research

Department of the Navy investments in science and technology (S&T) are wide-ranging, yet highly focused on ensuring Sailors and Marines possess a dominant position in any battlespace and against all threats at all times. Navy S&T delivers warfighter capabilities that enable future operating concepts and ensure the technological advantages necessary to pre-empt or defeat threats within complex physical, cyber, spectral and social domains. These capabilities also significantly increase the affordability of current and future systems and provide flexibility to address challenges faced by Navy and Marine Corps warfighters.

S&T Enables the Future Force

In a resource constrained environment, Navy S&T must deliver capabilities that are adaptable, mission-relevant and capitalize on the changing nature of technology and warfare. Timely delivery is critical to the warfighters to ensure their safety and readiness. These capabilities must also address important areas such as power and energy, total ownership cost and autonomy.

- Navy S&T is developing innovative methods for smarter generation, storage and distribution of [power and energy](#) throughout ships, vehicles and aircraft.
- [Total ownership cost](#) reductions are a key element of Navy S&T investments for delivering relevant technology solutions. These solutions address the full spectrum of near-, mid- and long-term warfighter requirements, while instituting lifecycle efficiencies and leveraging commercial capabilities. Today's reduction in cost ultimately increases available funding for the systems of tomorrow.
- Navy S&T efforts are concentrated on developing "the next big thing," such as [autonomy](#) in the form of distributed, forward autonomous vehicles that move the warfighter further away from harm and increase mission endurance and payload capacity.

From Vision to Results – A Plan for Science and Technology

The [Naval Science and Technology Strategic Plan](#) presents a balanced investment portfolio that enables the delivery of solutions for near, mid- and long-term warfighter requirements.

- The Naval Research Enterprise employs innovative ideas received from all levels — from junior enlisted Sailors to senior officers, from those operating at the deckplate level to boots-on-the-ground — online via [TechSolutions](#).
- Navy S&T efforts known as [Future Naval Capabilities](#) are aimed at closing identified warfighting capability gaps and delivering measurable products and improvements within three to five years.
- Investments in high-risk, high-return S&T research, referred to as [Innovative Naval Prototypes](#), deliver transformational warfighting capabilities and enablers which will preserve our advantage well into the future.

Key Messages

- Science and technology are foundational for future naval capabilities.
- Partnering with the best and brightest in academia, industry and government is vital to delivering capabilities to the warfighter.
- The interface between the Naval Research Enterprise and Naval System Commands transitions new technology today and maintains a focus on the next-generation warfighter.

Facts & Figures

- The Naval Research Enterprise spans all 50 states and 70 countries worldwide, and includes the Marine Corps Warfighting Lab, Navy warfare centers and Navy labs.
- Forty percent of the Office of Naval Research's budget is invested in basic research aimed at future breakthrough technologies.
- Thirteen Navy S&T focus areas are aimed at delivering a wide spectrum of warfighter mission capabilities.