Program Executive Office
Command, Control, Communications,
Computers, Intelligence and Space
Systems (PEO C4I and Space Systems)

PEO C4I and Space Systems

DEVELOPING ARTIFICIAL INTELLIGENCE IN DEFENSE PROGRAMS

Hosted by the Acquisition Research Program at Naval Postgraduate School
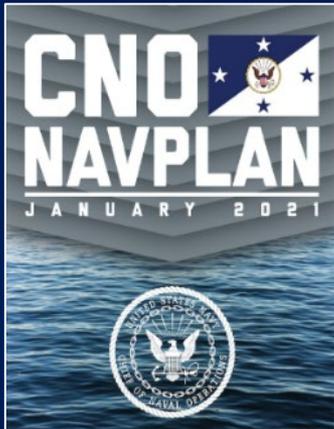
3 March 2021
Kurt Rothenhaus
Rear Admiral, USN

Deliver threat-based C4I and space capabilities to enable the fleet to compete, deter and win — tonight

PEO C4I and Space Systems

Advantage at Sea
Prevailing with Integrated All-Domain Naval Power

December 2020

CNO NAVPLAN
JANUARY 2021

CNO NAVIGATION PLAN 2021

America is a **maritime nation** - our security and stability depend on the seas. The U.S. Navy is America's away team, and alongside our allies and partners, we defend freedom, preserve economic prosperity, and keep the seas open and free. Today, we are engaged in a long-term competition. China and Russia are rapidly modernizing their militaries to challenge the international order that has benefited so many for so long. To defend our Nation and interests around the globe, we must be prepared to flawlessly execute our Navy's timeless roles of sea control and power projection. Joining with the Marine Corps and Coast Guard, we will generate decisive Integrated All-Domain Naval Power. There is no time to waste; our actions in this decade will set the maritime balance of power for the rest of the century. This Navigation Plan provides my strategic vision and our Navy's four priorities.

SAILORS
DEVELOP A SEASONED TEAM OF NAVAL WARRIORS
Objective: A dominant naval force that can outthink and outfight any adversary. Our Sailors will remain the best trained and educated force in the world. We will cultivate a culture of warfighting excellence rooted in our core values.

READINESS
DELIVER A MORE READY FLEET
Objective: A Navy that is manned, trained, and equipped to deploy forward and win in day-to-day competition, in crisis, and in conflict. We will consistently deliver maintenance on-time and in full, refurbish our critical readiness infrastructure, master all-domain fleet operations, and exercise with like-minded navies to enhance our collective strength.

CAPABILITIES
DELIVER A MORE LETHAL, BETTER-CONNECTED FLEET
Objective: A Navy capable of projecting synchronized lethal and non-lethal effects across all domains. We will deploy the Naval Operational Architecture by the middle of this decade; an array of counter-C5ISRT capabilities; weapons of increasing range and speed; and a directed-energy system capable of defeating anti-ship cruise missiles.

CAPACITY
DELIVER A LARGER, HYBRID FLEET
Objective: A larger, hybrid fleet of manned and unmanned platforms – under, on, and above the sea – that meets the strategic and operational demands of our force. We will deliver the Columbia-class program on time; incorporate unmanned systems into the fleet; expand our undersea advantage; and field the platforms necessary for Distributed Maritime Operations.

"For 245 years, in both calm and rough waters, our Navy has stood the watch to protect the homeland, preserve freedom of the seas, and defend our way of life. The decisions and investments we make this decade will set the maritime balance of power for the rest of this century. We can accept nothing less than success. I am counting on you to take in all lines and get us where we need to go – and to do so at a flank bell."

– Adm. Mike Gilday, Chief of Naval Operations

PEO C4I AND SPACE SYSTEMS
FY 21 Strategic Initiatives

Digitalization
- Digitize all aspects of our work
- Leverage emerging technologies in AI/ML in business, engineering, operations, sustainment

DevSecOps
- Make DevSecOps "business as usual"
- Drive quicker delivery of operationally relevant software

Sailor Self Sufficiency
- Provide flexible, operationally relevant training to Sailors who operate and maintain our fielded gear
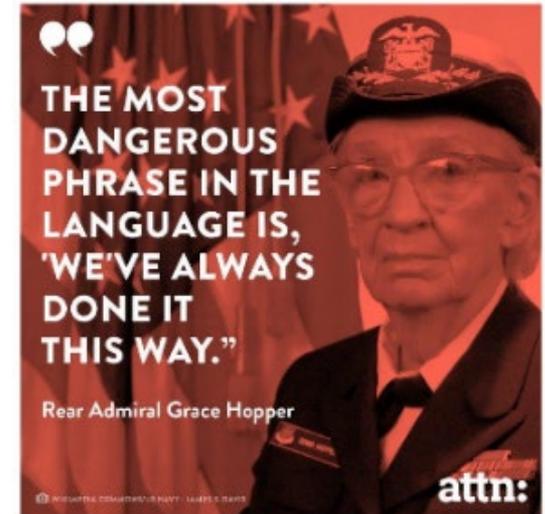- Fully integrate the Sailor into the "Ops" of DevSecOps

Accelerated delivery of required capability that is affordable, integrated and interoperable

Artificial Intelligence

- AI and DevOps

- Platform and Pipelines

- Data to Learn From

- Strategic High Ground for

  our Acquisitions

THE MOST DANGEROUS PHRASE IN THE LANGUAGE IS, 'WE'VE ALWAYS DONE IT THIS WAY.'

Rear Admiral Grace Hopper

attn:

"Algorithms tuned by an average engineer can outperform those built by the world's leading experts if the average engineer has access to far more data."

Kai-Fu- Lee
AI Superpowers

*Deliver for our Sailors and Marines so they can **maneuver**, **cyber defend,** and **maintain** in the high end fight*

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Accelerated delivery of required capability that is affordable, integrated and interoperable