



**Calhoun: The NPS Institutional Archive**  
**DSpace Repository**

---

NPS Scholarship

Reports

---

2021-10-19

## Get the Navy Aviation Vision 2030-2035

Mortimore, David

Monterey, California, Naval Postgraduate School

---

<https://hdl.handle.net/10945/68050>

---

This publication is a work of the U.S. Government as defined in Title 17, United States Code, Section 101. Copyright protection is not available for this work in the United States.

*Downloaded from NPS Archive: Calhoun*



<http://www.nps.edu/library>

Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

**Dudley Knox Library / Naval Postgraduate School**  
**411 Dyer Road / 1 University Circle**  
**Monterey, California USA 93943**



# The Scuttlebutt Blog

"USS Hermitage: Scuttlebutt's Thanksgiving edition - 1943" by USS Hermitage (AP-54) is licensed under agreement with the [U.S. Naval Institute](#).

## Get the Navy Aviation Vision 2030-2035

Mr. David Mortimore | October 19, 2021



Recently recently, the *Navy Aviation Vision 2030-2035* provides insights on key technology focus areas.

Published recently, the [Navy Aviation Vision 2030-2035](#) provides strategic guidance for the U.S. Naval Aviation Enterprise (NAE). It supports the “[Chief of Naval Operations]’ vision of a Navy that swarms the sea, delivering synchronized lethal and non-lethal efforts from near and far, on every axis and in every domain” (NAE, 2021, p. 2). The guidance emphasizes prevailing the Great Power Competition, generating future readiness, and revolutionizing training as key to the NAE’s future.

The [Navy Aviation Vision 2030-2035](#) further identifies technology focus areas essential to achieving the objectives. As described in the Future Technologies section, key technologies for research, development, and deployment include:

- Radio Frequency (RF) and Infrared (IR) signature reduction technologies
- Enhanced passive and active kill chains
- Manned/unmanned teaming (MUM-T)
  - MUM-T reduces risk to the manned aircraft resident within the CWV, while simultaneously increasing capability, capacity, and survivability. Unmanned Air

## Important Posts

[SLAMR Participant Resource Guide \(PDF\)](#)

[\\$656 Billion Invested in R&D in 2019](#)

[Follow Team NPS](#)

[Naval Surface and Undersea Warfare Centers Overview \(PDF\)](#)

## Recent Posts

[New National Strategic Overview for R&D Infrastructure](#)

| October 18, 2021

[AI and Autonomy in Russia Update](#)

| October 15, 2021

[U.S. Navy Priorities Issued by SECNAV](#)

| October 9, 2021

[Science and Technology Community Benefits from Technology Transfer Program](#)

| September 21, 2021

[T&E of AI and Autonomy: An Assurance Case Framework](#)

| September 15, 2021

[Maritime Risk Symposium 2021](#)

| August 20, 2021

Systems (UAS) will fill diverse roles in the future air wing and the distributed surface Fleet in missions such as refueling, communications relay, logistics, airborne electronic attack, strike, and [Intelligence, Surveillance, Reconnaissance and Targeting (ISR&T)].

- The MQ-25 will be the Navy's first aircraft carrier-based unmanned platform and will increase the lethality and reach of the [carrier air wing] as a tanker with a secondary [Intelligence, Surveillance, and Reconnaissance] role.
- The MQ-4C Triton achieved Early Operational Capability (EOC) in January 2020, delivering persistent maritime ISR&T through human-machine and autonomous teaming. It is on schedule to achieve Initial Operational Capability (IOC) in 2023. When paired with mission management tools, such as Minotaur with IFC 4 Multi-INT configuration, Triton will provide sensor agility to locate, track, classify, identify, and report on targets of interest.
- The MQ-8C Fire Scout unmanned aerial system will deploy for the first time in the near future with an advanced RADAR, Link 16, and the Minotaur mission system.
- Materiel and non-materiel solutions are being advanced to enhance interoperability between the MQ-8, MH-60, and Littoral Combat Ship. Incorporation of Link 16 messaging—as well as integration of Minotaur—will increase organic targeting capabilities for the distributed surface Fleet and improve battlespace awareness.
- Increased speed and range – Propulsion solutions that provide increased speed, range, and endurance while simultaneously providing power and cooling to advanced mission systems (i.e., variable cycle engines).
- Long-range, high-capacity, and hypersonic weapons – Next generation weapons must not only extend the air-to-air and surface-to-air reach, but also defeat both maneuvering air targets and surface-to-air defenses. This can be accomplished through increased kinematics (i.e., hypersonic) and/or other disruptive technologies such as directed energy weapons.
- Decreased decision-making timelines – Drive simplicity into tactics by incorporating automation, optimal crew vehicle interfaces, and teamed manned/unmanned forces that exploit Artificial Intelligence (AI) and Machine Learning (ML).
- Electromagnetic Maneuver Warfare (EMW) capabilities – The ability to counter enemy kill chains and air defense systems.
- Cyber capabilities – The ability to counter enemy cyber effects while enhancing cyber capabilities and platforms.
- Advanced networks – A Naval Tactical Grid (NTG) that is resilient with survivable waveforms.
- FORD Class aircraft carriers – Designed to support these and other technologies well into the future (NAE, 2021, pp. 6-7).

In addition to the details in the [Navy Aviation Vision 2030-2035](#), the [Naval Air Warfare Center Training Systems Division 2021 Research Compendium](#) offers insights into R&D work being done in training, human performance, and modeling and simulation by the NAE. Check out [SLAMR's Science and Technology \(S&T\) information store](#) for additional S&T guidance.

Source: Naval Aviation Enterprise (NAE). (2021, October). *Naval Aviation Vision 2020-2035*.



0 COMMENTS

← Please sign in to comment.

↑ To the Top

## [Delivering Advanced Autonomous Unmanned Systems and AI for Naval Superiority](#) | August 14, 2021

## [45 Technology Experiment Proposals Submitted for JIFX 21-4](#) | July 17, 2021

## [Special Operations Research Topics](#) | July 15, 2021

[ai](#) (13),  
[autonomous systems](#) (15).

[autonomoussystem](#) (4).

[autonomy](#) (5).

[machinelearning](#) (6).

[nps](#) (4), [onr](#) (3), [onrg](#) (1).

[osd](#) (6), [research](#) (8).

[researchproposals](#) (2).

[slamr](#) (9).

[strategy](#) (15).

[unmanned systems](#) (10).

[uxs](#) (1).

WELCOME

INFO YOU NEED

ENGAGE

THE SCUTTLEBUTT

ABOUT SLAMR





Naval Postgraduate School  
1 University Circle, Monterey, CA 93943  
[Driving Directions](#) | [Campus Map](#)

[This is an official U.S. Navy Website](#) | [Please read our PRIVACY AND WEBSITE POLICIES Notice](#) | [No FEAR Act](#) | [Whistleblower Protection](#) | [Contact SLAMR](#) | [Sign In](#)