



THE NAVAL AVIATION ENTERPRISE AIR PLAN



...One Vision, One Team

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“The Green Hornet and the path to a green fleet epitomize our new energy research, development, policy and operations and are the first stakes in the ground toward which we will work in the best interests of our Navy and our nation.”
- ADM Gary Roughead, Chief of Naval Operations

Naval Aviation Enterprise (NAE) Strategic Planning for Energy Efficiency

- Secretary of the Navy (SECNAV) Ray Mabus has issued aggressive goals to reduce the Department of the Navy’s (DoN) energy use and reliance on petroleum, and established working groups within the Navy’s Task Force Energy (TFE) to achieve them:
 - Include mandatory evaluation of energy factors when awarding contracts for systems and buildings
 - Demonstrate a Green Strike Group by 2012 and sail the “Great Green Fleet” by 2016
 - Reduce non-tactical petroleum use by 50% in the DoN commercial fleet by 2015
 - Produce at least 50% of DoN shore-based energy requirements from alternative sources by 2020; 50% of DoN installations will be net-zero
 - Utilize alternative energy sources for 50% of the DoN total energy consumption by 2020
- The TFE Aviation Working Group (AWG) is focused on Enterprise-wide efforts to improve current energy efficiency while promoting future alternative energy options through robust test and certification, advancement of training simulators, engine and air vehicle improvements, and science and technology innovations focused on enhancing combat capability.

“Fiscal realities and an increasing demand for Navy core capabilities reinforce Naval Aviation Enterprise efforts to develop strategies that drive good stewardship of our energy resources.”
- VADM Al Myers, Commander, Naval Air Forces

- The NAE Strategic Plan aligns with the SECNAV energy goals and the TFE AWG in identifying energy efficient practices and operations. Additionally, the strategic plan’s emphasis on managing total ownership costs (TOC) includes an energy efficiency component. The following NAE strategic initiatives and actions are tied to the broader energy focus:
 - Identify via the Future Readiness Cross-Functional Team (FR CFT) initiatives that yield a positive impact on future readiness, TOC and energy efficiencies with an acceptable return on investment for fielded systems and sustainment infrastructure.
 - Incorporate TOC objectives into the Science and Technology (S&T) roadmap and make future readiness life cycle costs (to include energy factors) a priority of interest in S&T project selection.
 - Include TOC concepts in the acquisition requirements documentation to compel appropriate consideration of availability, affordability, reliability, maintainability, and sustainability.
 - Actively participate in the Air Energy Conservation (Air ENCON) initiative. Near-term conservation efforts to be managed as a subset of the Naval Aviation Flying Hour Program with NAE oversight; mid- and longer term efforts to be supported by FR CFT efforts with NAVAIR as a working group lead as part of TFE AWG.

Key Messages

- Energy reform is a strategic initiative and energy efficiency is an integral factor to be considered throughout each phase of a weapon system’s life cycle.
- The NAE Strategic Plan is aligned with SECNAV energy goals and includes strategic initiatives to drive actions to reduce consumption in the near term and address technologies and investments in the long term.
- Naval Aviation is the largest user of fuel within the DoN. The Naval Aviation Enterprise supports Naval Aviation readiness requirements and will work together across the aviation industry to identify energy efficient practices, technologies, and operations.

Facts and Figures

- The Navy celebrated Earth Day (April 22) by showcasing a supersonic flight test of the "Green Hornet" - an F/A-18 Super Hornet operating on a 50% biofuel blend.
- Recognizing a need to conserve fuel during training events, San Diego-based helicopter wings located fuel bladders at outlying field Imperial Beach, thereby increasing operational effectiveness and preserving energy resources.
- F-18 aircraft used as “yo-yo” tankers (launching and then immediately landing after refueling other mission aircraft) reduce the number of airborne tankers required for a carrier launch and recovery cycle, saving an estimated \$1.68M gallons of fuel over a single deployment.