Degraded Visual Environment Pilotage System (DVEPS) Integration

NGAUS

Fiscal Year 2026 Requirements for the Army National Guard

DVEPs incorporates multiple aircraft mounted sensors to provide aircrews with enhanced obstacle detection.

Importance

DVE is the #1 priority of the NGAUS Army Aviation Task Force.

Army National Guard helicopters, including the UH-60/HH-60 Blackhawk and CH-47 Chinook, lack the necessary sensors to operate effectively in a Degraded Visual Environment (DVE). DVE is any condition that causes reduced visibility and compromises situational awareness such as dust, snow, smoke, etc. To ensure Soldier survivability and all-mission capability, the Army National Guard must be equipped with a DVE solution that enhances aircrew fidelity under all conditions, improves survivability domestically, and provides an unparalleled advantage on the future battlefield.

Recommendation

The National Guard Association of the United States (NGAUS) urges Congress to:

- Appropriate **$150 million** to support 3 incremental requirements:
  - Resource 2x 15-Ship HH-60M MEDEVAC Companies
  - Resource 2x 30-Ship UH-60M Air Assault Battalions
  - Resource $15 million of Non-Recurring Engineering for T&E of UH-60 aircraft

Energize DVE programming by directing 2 ARNG Helicopter Battalions and 2 MEDEVAC Companies to be resourced with DVE sensors.

Background

Degraded Visual Environment accidents present a real risk for Army Aviation. The Department of the Army (DA) estimates that over the past 10 years there have been 87 helicopter accidents related to DVE, resulting in 108 fatalities and nearly $900M in material losses. The DA developed and resourced a DVE sensor package for the HH-60M fleet, resourcing it to a unit for evaluation in 2021, and deployed that same DVE sensor-equipped active-duty unit three times in four years. Special Operations Command (SOCOM) fielded a DVE capability on their MH-60M and MH-47G aircraft, with aircrews citing significant improvements in safety, readiness, and mission accomplishment. Despite these successes, DA has not selected a DVE solution nor budgeted for fleet wide resourcing. Army National Guard leaders are unwilling to risk an additional 10 aircrew lives per year while waiting for budgeting of proven technology and believe current DVE solutions that fuse sensor data and provide the pilot visual, aural, and haptic cues, are superior to leaving these challenges unmitigated. The Army National Guard requires DVE solutions for its total rotorcraft fleet, including 921 Blackhawks and 165 Chinooks.

Continued

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A U.S. Army UH-60 Black Hawk with the Georgia Army National Guard, crests the ridge at the Marine Corps Mountain Warfare Training Center, Bridgeport, California.

Today, when visibility decreases, the risk of operations increases, and the advantage goes to the enemy – an actual adversary or the environment. To retain the asymmetric, technical overmatch Army Aviation pioneered with air assault operations and night vision technology, National Guard aircraft require a DVE solution akin to active-duty and SOCOM-proven capabilities to transform a degraded environment to an advantageous environment. To win the fight, aircraft, crews, and Soldiers must reach the fight. A DVE solution sets conditions for unprecedented support and agility for ground force commanders, reduces loss of life and equipment, and enables future integration of autonomous flight technology today.

SOCOM adopted a strategy to install DVEPS capability on the MH-60M and MH-47G fleets. SOCOM has seen vast improvements in training and much positive feedback from its users. The units and aircrews that have been fielded DVEPS are reporting great testimonial by stating that it greatly improves aircrew safety, readiness, and ensures mission accomplishment. However, Army Aviation lacks DVE mitigation technologies for the most utilized helicopter in the fleet- the UH-60M.

In 2021, the US Army successfully integrated DVEPS into 15 HH-60M helicopters for a directed requirement with a forward deployed Medevac company. The US Army is re-deploying the same DVEPS equipped Medevac unit for a third time in Feb 2025. The currently fielded DVEPS variant on the HH-60M can be integrated on the UH-60M with minimal engineering while garnering economic order savings across components. DVEPS is a proven technology that will reduce loss of life, equipment and training duration when implemented.

SOCOM is integrating DVEPS on their entire MH-47G and MH-60M fleet. The US Army is conducting validation testing of DVEPS on the CH-47F Block II and has fielded it on a forward deployed company of HH-60M Medevac helicopters. Additionally, DVEPS is being integrated for test on emerging platforms such as the V-280 Valor for FLRAA Increment 1. The units and aircrews that have been fielded DVEPS are reporting great testimonial by stating that it greatly improves aircrew safety, readiness, and ensures mission accomplishment. However, Army Aviation lacks DVE mitigation technologies for the most utilized helicopter in the fleet- the UH-60M.

The UH-60M is the only program of record helicopter in the US Army inventory that has not been scheduled for DVEPS certification/validation. Non-recurring engineering (NRE) work is needed to address obsolescence of the older DVEPS being flown on the HH-60M to integrate the latest DVEPS software and hardware upgrades being provided for SOCOM helicopters. This funding will also provide the additional NRE necessary for integrating and testing DVEPS with autonomous systems and exploring a viable path to pilotage.

In a future fight with a near-peer adversary it will be important that Army Aviation become an operational force that can operate in all environments. DVEPS provides a capability that is more than just take-off and landing in dust environments. It provides the ability to successfully execute missions in near zero visibility and bad weather conditions enabling Army Aviation to provide unparalleled support for ground force commanders unmatched by our enemies.

A CH-47F Chinook transport helicopter from the Connecticut Army National Guard, flies over the runway of the Connecticut Army National Guard Army Aviation Support Facility, Windsor Locks, Connecticut.

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