VH-92A® Patriot® Presidential Helicopter



In FY24, the Navy received the final delivery of 23 total aircraft procured under the VH-92A program. The Navy conducted a verification of correction of deficiencies (VCD) operational test that focused on Mission Communications System (MCS) improvements. VH-92A® and Patriot® are registered trademarks of the Department of the Navy.

SYSTEM DESCRIPTION

The VH-92A is a four-bladed, dualpiloted, twin-engine helicopter, based on the Sikorsky S-92A medium lift helicopter. VH-92A replaces the legacy fleet of VH-3D and VH-60N aircraft flown by Marine Helicopter Squadron One (HMX-1) to perform the Presidential Transport mission. The VH-92A is transportable via

a single Air Force C-17 cargo aircraft to worldwide locations. The aircraft is equipped with the MCS, which provides simultaneous line-of-sight and beyond line-of-sight, non-secure and secure, voice and data communications to the

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passengers, to perform senior leader duties. MCS performance is critical to mission success.

MISSION

HMX-1 uses the VH-92A aircraft to conduct administrative lift and contingency operation missions for pre-planned and unscheduled transport of the President of the United States, cabinet members, heads-of-state, and other parties, as directed by the White House Military Office (WHMO). HMX-1 will operate the VH-92A from the White House South Lawn, commercial airports, military airfields, Navy ships, and austere sites throughout the world.

PROGRAM

VH-92A is an Acquisition Category IC program. The Navy procured 23 aircraft: 21 operational aircraft and 2 dedicated engineering development model test aircraft. The U.S. Marine Corps declared initial operational capability for the VH-92A in December 2021, and the VH-92A is now supporting the WHMO Transition Plan assigned tasking. The WHMO Transition Plan stipulates an event-driven, multi-phased approach to replace legacy helicopters with the VH-92As. The final production VH-92A aircraft were delivered in FY24. DOT&E published an FOT&E report in January 2023, based upon FOT&E completed in 4QFY22, that assessed effectiveness, suitability, and cyber survivability, and verified the correction of deficiencies identified during

IOT&E conducted in FY21. In FY24, the Navy conducted a VCD operational test that focused on MCS improvements. The program's roadmap has funded modernization planned through FY29. The Navy intends an additional FOT&E to test these future capability improvements, beginning in FY25. The current TEMP, approved by DOT&E in 2015, will require a revision that includes the schedule and resources for this FOT&E.

» MAJOR CONTRACTOR

 Sikorsky Aircraft Corporation, a subsidiary of Lockheed Martin Corporation – Stratford, Connecticut

TEST ADEQUACY

In 2QFY24, HMX-1 conducted a VCD operational test, at the request of the VH-92A Program Office, under the auspices of the Navy's Operational Test and Evaluation Force. The objective of this test was to determine whether an updated MCS software version fixed MCS deficiencies identified during FOT&E in FY22. This MCS software was qualitatively evaluated for operational functionality on two VH-92As through four functionality flights. Although DOT&E provided input to the test plan, this VCD was not part of a formal FOT&E period, nor did it address effectiveness or suitability, therefore DOT&E did not approve the test plan, nor observe testing. DOT&E will not provide an independent assessment of

the performance of this MCS version due to the relatively minor capability improvements from the MCS version tested in FOT&E.

PERFORMANCE

» EFFECTIVENESS

VH-92A is operationally effective for all operations based upon IOT&E conducted in FY21 and FOT&E conducted in FY22. DOT&E's assessment of the VH-92A's effectiveness is detailed in the September 2021 IOT&E report and January 2023 FOT&E report. The VCD operational test conducted in FY24 found that 30 open deficiencies had been adequately corrected, 1 has been mitigated through changes to the standard operating procedures, and 1 is no longer applicable due to a WHMO policy change regarding the system design.

» SUITABILITY

VH-92A is operationally suitable for all operations based upon IOT&E conducted in FY21 and FOT&E conducted in FY22. In the January 2023 FOT&E report, DOT&E assessed that VH-92A is a maintenance-intensive aircraft, with maintenance inspections accounting for the majority of maintenance hours. Fleet data indicates the Navy is making progress in this area.

» SURVIVABILITY

DOT&E's assessment of the VH-92A's cyber survivability is detailed in the classified annexes of the

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September 2021 IOT&E report and January 2023 FOT&E report.

RECOMMENDATIONS

The Navy should:

- 1. Continue to address recommendations in the IOT&E report from September 2021, and the FOT&E report from January 2023, as recommended in the FY22 and FY23 Annual Reports.
- 2. Submit an updated TEMP to DOT&E for approval in FY25 to support future capability upgrades.
- Conduct FOT&E to assess new capabilities in operationally representative environments.

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