

VH-92A[®] Presidential Helicopter Replacement Program

The United States Marine Corps intends to declare initial operational capability in 2022 based on the IOT&E conducted by Marine Helicopter Squadron One (HMX-1) using production representative System Demonstration Test Article aircraft from February 8 to April 16, 2021 under the auspices of the Commander, Operational Test and Evaluation Force. The VH-92A operational effectiveness, suitability and survivability is detailed in the VH-92A IOT&E report, published in September 2021. VH-92A is a registered trademark of the Department of the Navy.



System Description

The VH-92A is a four-bladed, dual-piloted, twin-engine helicopter based on the Sikorsky S-92 medium-lift helicopter, equipped with the Mission Communication System (MCS) to enable simultaneous short- and long-range secure and non-secure voice and data communications. HMX-1 will use the VH-92A aircraft to conduct administrative lift and contingency operations intended to provide safe and timely, pre-planned or unscheduled, transport of the President of the United States and other parties as directed by the White House Military Office. The Navy intends for the VH-92A to be air transportable to remote locations via a single Air Force C-17 cargo aircraft. The VH-92A will replace the legacy fleet of VH-3D and VH-60N aircraft.

Program

VH-92A is an Acquisition Category IC program that does not include a full-rate production decision. DOT&E-approved the VH-92A Test and Evaluation Master Plan in 2015 and the IOT&E plan in 2020 in support of the United States Marine Corps declaration of initial operational capability and the White House Military Office's VH-92A Commissioning Program. The Navy intends to procure 23 VH-92A aircraft to replace 23 legacy aircraft.

Major Contractor

Sikorsky Aircraft Corporation, a Lockheed Martin Company – Stratford, Connecticut.

Test Adequacy

Operational, live fire, and cybersecurity testing were conducted in accordance with DOT&E-approved test plans and were adequate to evaluate operational effectiveness, suitability, and survivability of the VH-92A as operated by HMX-1.

HMX-1 conducted IOT&E using production-representative System Demonstration Test Article aircraft from February 8 to April 16, 2021 under the auspices of the Commander, Operational Test and Evaluation Force. The majority of the operations took place in the National Capital Region using facilities and landing zones routinely employed by HMX-1. IOT&E also included a three-aircraft deployment to Joint Base Charleston, South Carolina. During IOT&E, HMX-1 flew 130.9 hours and completed 18 operationally representative administrative lift and contingency operation missions.

Performance

Effectiveness and Suitability

In accordance with the VH-92A Security Classification Guide, the operational effectiveness and suitability of

the VH-92A is detailed in the Controlled Unclassified Information edition of this report. The report assesses the VH-92A operational effectiveness for administrative lift missions and contingency operation missions to include the contribution of MCS to operational performance. The report details the lift capacity, range, and airspeed compared to in-service aircraft. The report also assesses the VH-92A suitability requirements, the organizational-level MCS diagnostic capability at HMX-1 and time required to access MCS components.

Survivability

The VH-92A survivability assessment against operationally relevant threats, to include assessment in a cyber-contested environment, is summarized in two classified annexes of the VH-92A IOT&E report, published in September 2021.

Recommendation

1. The Navy should consider addressing the recommendations offered in the Controlled Unclassified Information edition of this report.