

VH-92A Presidential Helicopter Replacement Program

Executive Summary

- The VH-92A program is progressing on schedule with excellent teamwork and open communication among all agencies involved.
- The Navy modified two Sikorsky S-92A aircraft to produce two VH-92A aircraft and the first aircraft has entered contractor testing with the second to follow in the fall of 2017.
- This effort includes the integration of the Mission Communications System (MCS) designed by Naval Air Systems Command (NAVAIR) at St. Inigoes, Maryland. MCS software development is progressing on schedule.
- The Navy intends to conduct integrated flight testing in mid-FY18. It will be followed by an operational assessment planned for December 2018 through January 2019 to support a Milestone C decision in 2QFY19. Planning for the operational assessment is progressing on schedule.
- VH-92A-unique fuel bladders passed drop testing in April 2017 after initial drop testing failures.
- The program has solved the challenges relative to connecting to the Crisis Management System and the Executive Airlift Command Network.
- Live fire testing is proceeding as scheduled.

System

- The VH-92A is a dual-piloted, twin-engine helicopter based on the Sikorsky S-92A. The Navy intends the VH-92A to maintain Federal Aviation Administration (FAA) airworthiness certification throughout its lifecycle.
- The VH-92A aircraft will replace the current Marine Corps fleet of VH-3D and VH-60N helicopters flown by Marine Helicopter Squadron One (HMX-1) to perform the presidential airlift mission.
- The Navy intends the VH-92A to be capable of operating worldwide in day, night, or adverse weather conditions. The VH-92A will be air-transportable to remote locations via a single Air Force C-17 cargo aircraft.
- The government-designed MCS will provide the ability to conduct simultaneous short- and long-range secure and non-secure voice and data communications. The Navy intends MCS to exchange situational awareness information with



- outside agencies, organizations, and supporting aircraft. The MCS hardware will be installed into the VH-92A at Sikorsky Aircraft in Stratford, Connecticut, and then software will be loaded and checked out by Lockheed Martin in Owego, New York.
- Final interior finishing and aircraft painting will be done at Owego to complete the VH-92A for deployment.
- Delivery of the first two Engineering Development Models (EDM-1 and EDM-2) is on schedule for 2018, followed by four System Development Test Article aircraft planned for 2019.

Mission

- HMX-1 equipped with the VH-92A aircraft will provide safe and timely transport of the President of the United States and other parties as directed by the White House Military Office.
- The VH-92A is required to operate from commercial airports, military airfields, Navy ships, and austere sites throughout the world.

Major Contractors

- Sikorsky Aircraft – Stratford, Connecticut (a Lockheed Martin Company subsidiary company since 2015)
- Lockheed Martin – Owego, New York

Activity

- Modifications to two S-92A aircraft are complete, and the aircraft are now in the VH-92A configuration. EDM 1 achieved its first flight at the Sikorsky facility in Stratford, Connecticut, on July 28, 2017. It has entered into contractor testing and has relocated to the Lockheed Martin facility at Owego, New York.
- EDM-2 is expected to achieve its first flight in November 2017 and it will then join EDM-1 for contractor testing at Owego. Sikorsky conducted flight test events close to the original program schedule.
- NAVAIR at St. Inigoes, Maryland, is continuing development of the MCS software. Systems integration laboratories, which

FY17 NAVY PROGRAMS

- replicate the MCS for development, test, and training, are up and running and MCS software development is on schedule
- Sikorsky installed the MCS hardware as part of the VH-92A modifications and Lockheed Martin is installing early builds of the MCS software into the EDMs at Owego.
 - The Navy is continuing to plan for the VH-92A operational assessment, which is forecast for December 2018 through January 2019. It includes HMX-1 aircrews, and 30 flight hours over 30 days utilizing two VH-92A aircraft. This assessment will exercise all Presidential airlift missions at actual mission sites with personnel participating from all agencies that support the White House. Scenarios are planned to include both VH-92A cabin configurations.
 - After initial drop testing failures, the VH-92A-unique fuel bladders passed drop testing in April 2017.
 - Live fire testing is proceeding as scheduled.

Assessment

- The program is progressing on schedule. Maintenance of FAA airworthiness certification is a key emphasis area.
- The Navy intends to conduct integrated developmental/operational testing for 150 flight hours at Naval Air Station Patuxent River, Maryland, beginning in mid-FY18 and will include loading a VH-92A onto a C-17 to simulate a

long-distance deployment. Integrated testing will be followed by an operational assessment planned for December 2018 through January 2019 to support a Milestone C decision in 2QFY19.

- Preparing the operational assessment plan is on schedule. The Navy's Operational Test and Evaluation Force (OPTEVFOR)/HMX-1 will function as the Operational Test Agency and DOT&E will oversee testing. Timing of EDM-2 delivery in time for this operational assessment is a watch item.
- The program has solved previous challenges meeting the Net Ready Key Performance Parameter for the MCS relative to connection to the Crisis Management System and connection to the Executive Airlift Command Network.
- Preliminary review of the live fire test data collected to date is underway and proceeding well.

Recommendations

- Status of Previous Recommendations. The Navy should continue to address the FY16 recommendations.
 1. Complete plans for the operational assessment planned for December 2018 through January 2019.
 2. Continue planning efforts for HMX-1 transition to VH-92A.
- FY17 Recommendations. None.