

HH-60W Jolly Green II

The Air Force is tracking several deficiency reports that increase the HH-60W's risk to meeting operational effectiveness and survivability requirements. There are no significant risks to the HH-60W demonstrating operational suitability in IOT&E. Delays in correcting deficiencies identified in developmental testing increase risk to the schedule for IOT&E, initial operational capability, and full-rate production decision.



System Description

The Air Force HH-60W Jolly Green II is a new-build, dual-piloted, twin-engine helicopter that will replace the HH-60G. The aircraft is designed to extend the combat radius without aerial refueling and conduct an out-of-ground-effect hover at its mid-mission gross weight. The HH-60W design is intended to enhance survivability while units equipped with the HH-60W recover isolated personnel from hostile or denied territory, day or night, in adverse weather, and in a full range of threat environments from terrorist to chemical, biological, radiological, and nuclear. Commanders will also employ the HH-60W to support humanitarian missions, civil search and rescue, disaster relief, and medical and non-combatant evacuation operations.

Program

HH-60W is an Acquisition Category IC program. DOT&E approved the LFT&E Strategy in April 2015 and the Milestone C Test and Evaluation Master Plan in January 2020. DOT&E approved portions of the Air Force Operational Test and Evaluation Center (AFOTEC) IOT&E plan to support pre-IOT&E test events because challenges with several critical capabilities delayed the start of dedicated IOT&E. The program plans an initial operational capability decision in May 2022 and the full-rate production decision in August 2022.

Major Contractor

Sikorsky Aircraft Corporation – Stratford, Connecticut.

Test Adequacy

The HH-60W IOT&E is based on two-ship mission scenarios in a variety of environmental, threat, and mission conditions. Although AFOTEC planned to start dedicated IOT&E in July 2021, the program does not expect availability of several crucial operational capabilities before February 2022. These delayed capabilities are

compressing the schedule available for IOT&E before the planned initial operational capability and full-rate production decisions.

AFOTEC began collecting preliminary data on HH-60W operational performance during the 41st Rescue Squadron's participation in the Red Flag Rescue exercise in May 2021 and has continued observing training and familiarization operations, collecting data when operationally relevant. Analysis is ongoing to determine what data will be acceptable for evaluation. AFOTEC also conducted the first of three phases of cybersecurity testing from July to August 2021.

The Air Force continued analytical efforts to evaluate aircraft system-level vulnerability and force protection against kinetic threats, directed energy weapons, electromagnetic, and chemical, biological, radiological, and nuclear threats. The Air Force plans to complete an infrared signature analysis to evaluate the effectiveness of the upturned exhaust system.

Performance

While the unit equipped with HH-60W demonstrated the capability to support personnel recovery missions, the Air Force is tracking several deficiency reports that

increase the HH-60W's risk to meeting operational effectiveness requirements. Preliminary data from the first unit's aircraft operations suggest the HH-60W should be able to meet most operational suitability requirements, to include reliability, availability, and maintainability. The program will need to mitigate deficiencies in the countermeasures dispenser set and supply operationally representative software and mission data load for the radar warning receiver to enable an adequate HH-60W survivability assessment in a contested environment. In accordance with the HH-60W Security Classification Guide, additional details are provided in the Controlled Unclassified Information edition of this report.

Recommendation

1. The Air Force should update the test, fielding, and acquisition schedules to account for developmental delays and allow for an adequate assessment of HH-60W operational effectiveness, suitability, and survivability.