

# HH-60W Jolly Green II



The Air Force completed the HH-60W IOT&E in October 2022 in accordance with the DOT&E-approved test plan and DOT&E observed the testing. In March 2023, DOT&E published a combined IOT&E and LFT&E report to inform the HH-60W full-rate production (FRP) decision in April 2023. The Air Force began FOT&E of deficiency corrections and deferred capabilities in June 2023.

## SYSTEM DESCRIPTION

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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, conduct an out-of-ground-effect hover at its mid-mission gross weight, and improve survivability.

## MISSION

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Commanders will employ units equipped with the HH-60W to:

- Recover isolated personnel from hostile or denied territory, day or night, in adverse weather, and in a variety of threat environments from terrorist to chemical, biological, radiological, and nuclear.
- Conduct humanitarian missions, civil search and rescue, disaster relief, medical evacuation, and non-combatant evacuation operations.

## PROGRAM

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The HH-60W is an Acquisition Category IC program. DOT&E approved the LFT&E Strategy in April 2015, the Milestone C Test and Evaluation Master Plan (TEMP) in January 2020, and an updated TEMP in March 2023 to support FRP. DOT&E approved the IOT&E plan, and the Air Force Operational Test and Evaluation Center (AFOTEC) started dedicated IOT&E in April 2022. DOT&E published a combined IOT&E and

LFT&E report with a classified annex in March 2023 to inform the FRP decision in April 2023.

DOT&E approved the first FOT&E test plan in June 2023. This testing will evaluate upgraded hover symbology for restricted visibility approaches and the integration of a weapon deferred from IOT&E as well as corrections of deficiencies discovered before and during IOT&E. Subsequent FOT&E plans will evaluate other deferred capabilities, including the full data link capability discussed in the FY22 Annual Report, and planned capability upgrades.

### » MAJOR CONTRACTOR

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

## TEST ADEQUACY

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AFOTEC conducted IOT&E, including cyber survivability testing, from April through October 2022, in accordance with DOT&E-approved test plans and it was observed by DOT&E. Operational testing focused on end-to-end mission scenarios including open, confined, and mountainous terrain; high and low altitude; water and shipboard operations; and a range of threats from small arms to surface-to-air missiles. The Air Force also completed all live fire testing, analyses, and assessments per the approved LFT&E Strategy. Testing was monitored or observed by DOT&E

and was adequate to evaluate the operational effectiveness, suitability, and survivability of the HH-60W.

AFOTEC began HH-60W FOT&E, in accordance with a DOT&E-approved test plan, in June 2023 to evaluate the integration of a deferred weapon, corrections of test-identified deficiencies, and upgraded hover symbology. For FOT&E, the Air Force shifted responsibility for operational testing from the 23rd Wing, 347th Rescue Group at Moody AFB, Georgia, to the 53rd Wing, 53rd Test and Evaluation Group at Nellis AFB, Nevada.

## PERFORMANCE

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### » EFFECTIVENESS

DOT&E's assessment of the HH-60W's operational effectiveness focused on whether the aircraft provided the capabilities and information necessary for crews to successfully conduct the personnel recovery mission in all expected physical and threat environments. Details can be found in DOT&E's March 2023 combined IOT&E and LFT&E report.

### » SUITABILITY

DOT&E's assessment of the HH-60W's operational suitability used hardware and software failure rate and repair time data collected during IOT&E to determine operational availability and mission reliability. The assessment also includes the crews' ability to operate aircraft and weapon

systems, from both human-system interaction and training adequacy perspectives. Details can be found in DOT&E's March 2023 combined IOT&E and LFT&E report.

## » **SURVIVABILITY**

DOT&E's assessment of system survivability used live fire testing and analyses as well as cyber survivability data collected during two cooperative vulnerability and penetration assessments, and three adversarial assessments. Details can be found in the classified annex to DOT&E's March 2023 combined IOT&E and LFT&E report.

## **RECOMMENDATIONS**

The Air Force should:

1. Complete FOT&E of the deferred weapon and corrections of deficiencies identified in DOT&E's March 2023 combined IOT&E and LFT&E report.
2. Conduct FOT&E of the remaining deferred capabilities and planned capability upgrades.