# Air Operations Center–Weapon System (AOC-WS)

The Air Force continues to develop the Air Operations Center-Weapon System (AOC-WS) Block 20 software, but it is unlikely to be sufficiently mature to support a full OT&E until FY23.  The Air Force plans to meet a long-standing cybersecurity assessment requirement, revise an outdated Test and Evaluation Master Plan (TEMP), and re-submit to DOT&E for review and approval in FY22.



## System Description

The AOC-WS is a system of systems that incorporates numerous third-party, commercial off-the-shelf, and Agile-developed software applications.  It provides the Commander, Air Force Forces, or the Joint/Combined Forces Air Component Commander with the capability to exercise command and control of joint or combined air forces, including planning, directing, and assessing air, space, and cyberspace operations, as well as air defense, airspace control, and the coordination of space and mission support not resident within theater.

## Program

The AOC-WS 10.1 (AN/USQ-163 Falconer) was a Major Automated Information System program or Acquisition Category IAM when it completed initial operational testing in February 2005.  Since FY19, the Program Office delivered incremental updates via Agile Release Events (AREs) to both maintain and upgrade the system. The AOC-WS 10.1 TEMP, approved in 2011, is no longer current, and the Program Office expects to update the TEMP in FY22.

AOC-WS Block 20 started as a Defense Innovation Unit Experimental effort in 2017.  The Program Office transitioned it to six Middle Tier of Acquisition Section 804 programs in FY19.  The program intends to transition all efforts to the Software Acquisition Pathway in FY22.  As more Block 20 capabilities are developed, the program will continue to transition AOC-WS from the fielded increment 10.1 to a hybrid configuration of AOC-WS 10.1 and Block 20 capabilities.

There is currently no DOT&E-approved TEMP or test strategy for AOC-WS Block 20.  In FY22, the Air Force Operational Test and Evaluation Center (AFOTEC) intends to provide a revised overarching test plan and the Program Office intends to update the 10.1 TEMP that allows for an assessment of the continued evolution of 10.1 and Block 20 capabilities.

## Major Contractors

Raytheon Intelligence, Information and Services – Dulles, Virginia. Air Force Life Cycle Management Center, Detachment 12 – Boston, Massachusetts.

## Test Adequacy

The Air Force conducted three ARE upgrades of AOC-WS 10.1 in FY21. AFOTEC conducted five OT&E events, and those were consistent with the initial test strategy briefed to DOT&E.

## Performance

AOC-WS 10.1 upgrades are operationally effective and suitable. In accordance with the AOC-WS Security Classification Guide, additional details are provided in the Controlled Unclassified Information edition of this report.

## Recommendations

The Air Force should:

1. Provide a Block 20 acquisition strategy with estimated milestone dates. This is necessary for test planning and compliance with DOD policies governing Middle Tier of Acquisition and Software Acquisition Pathway programs.

2. Submit a TEMP to DOT&E describing an approach to testing the AOC-WS configuration that includes the continued evolution of 10.1 and Block 20.

3. Implement a solution to meet the long-standing requirement to collect and report reliability, availability, and maintainability data for the AOC-WS.