

SAAB 2000(AEW&C) – PLATFORM TESTING

Björn Martinsson, Flight Test Engineer

Saab AB (publ), SE-581 88 Linköping, Sweden



ABSTRACT

The Saab 2000(AEW&C) is a surveillance aircraft based on the Saab 2000 turboprop regional aircraft. Major components for the surveillance system and electronic warfare are mounted externally on the aircraft. The surveillance radar, Erieye, is mounted as a dorsal unit on struts above the aircraft fuselage. The electronic warfare equipment is mounted in pods on the wing tips, fin tip and on the fuselage. The Saab 2000(AEW&C) does also have an extended vertical stabilizer to counteract the reduction in directional stability due to the dorsal unit. Those changes to the external geometry do affect the stability, controllability, position error and performance of the aircraft.

For this kind of derivate programs, it can be difficult to judge the effect of the changes. What has an effect and what has not? What requires testing and verification of the models? Seemingly small exterior changes can have a large or unexpected impact on characteristics and performance etc.

This paper describes the approach to selecting tests to perform, test methods used and results from the stability, controllability and position error testing of the Saab 2000(AEW&C).