

THE GRIPEN DEMONSTRATOR PROGRAM – THE FIRST PHASE OF FLIGHT TESTS

Author

Mattias Bergström, Project Manager

Mikael Seidl, Chief Test Pilot

ABSTRACT

The Gripen Demo aircraft is a test bed for Gripen Next Generation (NG) and for possible further enhancements to the current Gripen fleet. Its purpose is to prove and validate some of the primary design changes and new capabilities we are planning to implement. Major design changes introduced in the demonstrator aircraft during the first phase of flight tests includes a new engine, the GE F414, a redesigned main landing gear, more internal fuel and more weapons hard points. Later in the program, for the second phase will, among other things, an AESA radar and enhancements to the defensive and communication system be introduced as well.

The redesign of the landing gear and the new engine meant that we, from a flight test point of view, treated the Gripen Demo as a brand new aircraft. The first phase of the flight test program, which now has been successfully concluded, was subsequently characterized by envelope expansion and basic aircraft testing.

This paper describes how we overcame the challenges we faced and the lessons we have learned so far from the first phase of flight tests with the Gripen Demo aircraft.