

“EF2000 Environmental trials. The long way to all weather qualification.”

Jesús Javier Fernández Orío and César García de Torres
National Institute for Aerospace Technology, INTA
Carretera de Ajalvir, km 4, 28850, Torrejón de Ardoz, Spain
Email: oriojj@inta.es, garciatc@inta.es

Abstract: Today, one of the most forgotten parts of the testing process on any new aircraft is the environmental conditions trials. Nevertheless, the consequences of ignoring them or not performing in all the necessary extension are well documented and recorded in the past. In the military world, most of the equipments are expected to be working in the worst conditions.

In addition most of the combat and transport aircraft that are manufactured today are offered to any nation in the world, from the Artic circle to the hot deserts. EF2000 is an international program, integrated by four nations (Germany, UK, Italy and Spain). Every country has different climates and different requirements regarding the weather and environmental service conditions for any equipment in their weapons systems inventories.

On the other hand, this was one aircraft and a determined weapon system and they cannot follow four different qualification processes. As it was an international program, the four nations had to perform a unique way of testing for the aircraft.

In this paper we will show the approach to the problem when eventually the EF2000, had to pass these trials. The amount of equipment, personnel, flight and ground crew and the difficulties in perform testing far away from home had to be considered when the flight test campaign was planned. The different sites and conditions will be described with also the lessons learned and results obtained during the process.