



# TESTING YEARS

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*Below:* TSR 2 climbing from Boscombe for its first supersonic flight, 22 February 1965, and delivery to Warton. BAe



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# Introduction

The 40 years from 1939 to 1979 saw many major milestones in aviation from the final replacement of the biplane by the monoplane through the first major war in which air fighting and air attack were to play a dominant and decisive part, to the postwar advent of the gas turbine 'jet' engine leading to the era of practical supersonic flight.

During this fascinating period in which aviation 'grew up' in terms of all-weather operation and of transformation from its role as an instrument of mass warfare to that of the primary method of world-wide travel, the author was privileged to experience flying over 170 different types of aeroplane ranging from the beautiful silver doped fabric and wire biplanes of the 1930s through the classic propeller-driven monoplane fighters of the 1940s to the swept wing jet supersonics of the 1950s and the highly automated Mach 2 fighter and strike aircraft of the 1960s and 1970s, and some of these are discussed in the following chapters with relevant quotations from the author's original test flight reports. The aircraft chosen represent those most interesting to the author for their capability in their design roles or, in some cases, just for the sheer exhilaration of flying them.

These experiences led to a number of conclusions, among them that a prototype 'First Flight' is far removed from the mass media idea of 'the test flight!' and is only the beginning of the third and vital stage of the evolution of a new design which starts with specification and design-study, continues with design and initial build and ground testing through to the flight testing and development programme before being finally cleared for service trials.

In all fields of human endeavour it is human to err and no one designs an aircraft which is right first-time. The final polish has to be done by trial and development and with high performance aircraft this phase can require many years of team-work by highly skilled and dedicated engineers and air-crews before the aeroplane can be said to be safe and efficient for service.

In this experience it has become obvious that while this country has no monopoly in ability to build fine aircraft it has built better than most and in many cases supreme aircraft without superior anywhere, and the Royal Air Force and our airlines and flying schools have demonstrated to the world that we are a race of aviators to be reckoned with as we were seafarers before.

In the short 60 years since practical flying began we have built a great heritage throughout this field of aviation on which new generations must continue to build with pride our part in the great flying world of the future.

The following reminiscences may recall some great events to those who were there, and perhaps be of interest to some of those who are just entering the fascinating and demanding world of the aeroplane. The views and opinions expressed are the author's own and do not necessarily reflect those of any other persons and authorities mentioned in the text.

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*Below:* Tornado long range fighter version for UK defence.



