



Most pilots consider the cockpit the heart and soul of an aircraft. The combination of instruments, flight controls and proper pilot training continues to bring pilots and their passengers home safe every day. We salute cockpit designers around the world. (Douglas Aircraft)

Introduction –

Welcome to the world of yesterday's cockpit photographs. Each of the over one hundred cockpits depicted in *Portals into the Sky* was photographed when the cockpit, instruments and flight controls were new. They are photographs taken in the yesterdays of time, and show today's aviation enthusiast what was once considered aviation's leading edge cockpit design.

These avionics and flight controls might seem primitive, bulky or cumbersome. The "wow" factor that the technology would have caused in its era may be lost. But these once newsworthy images to the aviation world provide an important perspective on the history of flying.

We start our time travel with the Wright Brothers' 1911 B aircraft. It is considered the first aircraft with the basis of aircraft controls that made fixed-wing powered flight possible. The Brothers invented the idea of "three access control" known as pitch, roll and yaw. Controlling these flight dynamics enabled a pilot to steer and to maintain an aircraft's equilibrium. The sensitivity, accuracy and reliability of the cockpit devices have been continually enhanced by manufacturers, but the basic controls remain the same.

A friend who flew a B-17 in WWII makes presentations to high school students along with another pilot. The WWII pilot begins her presentation with the 1943 pre-flight check sequence. About midway through the check, her friend, a Space Shuttle astronaut, picks up the pre-flight check list sequence from the other side of the stage and from another time, the Space Shuttle perspective. To the young adult's surprise the procedures are similar. The physics of flight haven't changed – just the instrumentation, controls and propulsion have.

After you page through *Portals into the Sky*, I think you will agree that all new cockpit designs will become yesterday's news and another edition of this book will become necessary in a couple of decades. Enjoy your trip and don't forget to buckle up.