

Analysis of the Benefits of Motion Simulators in 5th Generation Fighter Pilots' Training

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Abstract : In military aviation, the use of flight simulators has proliferated recently in order to train fifth generation fighter pilots. With these simulators, pilots can carry out real-time flights resulting in seeing their faults and can perform emergency drills prior to real flights. Since we cannot risk losing the aircraft and the pilot himself/herself in the flight training process, flight simulators are of great importance to adapt the fighter pilots competently to real flights aboard the fifth generation aircraft. The real flights are impossible to simulate thoroughly on the ground. To some extent, the fixed-based simulators may assist the pilot to steer aircraft technically and visually but flight simulators can't trick the pilot's vestibular, sensory, and perceptual systems without motion platforms. This paper discusses the benefits of motion simulators for fifth generation fighter pilots' training in preference to the fixed-based counterparts by analyzing their pros and cons.

Keywords : military, pilot, sickness, simulator

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