A Flight Simulator Study to Evaluate Manual Flying Skills of Airline Pilots

This paper reports an experimental study with the objective to assess pilots’ raw-data-based flight performance which is affected by long-term practice and structured training. Fifty-seven airline pilots with different levels of aviation experience scheduled on an Airbus fleet, representing contrary levels of practice and training, had to fly a simulated 45 minutes approach and landing scenario while flight performance data were objectively recorded. The level of practice and training was found to have a significant influence on manual flying skills. Pilots with low levels of practice and training showed a large variance in manual flight performance; pilots with high levels of practice and training demonstrated high and homogenous performance.