

ANTHROPOMETRIC ASPECTS OF COCKPIT LAYOUT DESIGN IN TRANSPORT AIRCRAFT

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Abstract

This paper introduces a first principles based approach for the determination of minimum space required in the cockpit for accommodating a range of pilot population between 3 to 97 percentiles. The range of flight control deflections for a typical control column and rudder pedal arrangement and the polar vision aspects are considered in arriving at the results. Reachability in the cockpit to the primary display is also accounted. This approach is compared and contrasted with the cockpit layout applicable for 5-95 percentile American males as opposed to the Indian pilot population.

Keywords: Ergonomics, Cockpit, Anthropometry