

ANTHROPOMETRIC COMPARATIVE STUDY OF OMAN MILITARY AIRCREW RECRUITS ÉTUDE

COMPARATIVE ANTHROPOMÉTRIQUE DES RECRUES DES ÉQUIPAGES MILITAIRES D'OMAN

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Introduction: Aircrew-aircraft compatibility is of prime importance in military aviation for task accomplishment and flight safety. Anthropometric aircrew selection standards in the Royal Air Force of Oman (RAFO) were imbibed from the selection standards of western defense forces as the aircrafts were imported from those developed countries. Henceforth efforts were made to fit the local native aviators into the aircraft not initially designed for them. In view of this, this study was carried out to obtain the anthropometric data of Oman aircrew recruits and compare these with published western and eastern aircrew data with a hope to understand and highlight the aircrew-aircraft mismatch issues.

Methods: The anthropometric data of 2296 Omani recruits from 2003 to 2012 were collected and their statistical distribution of data was collated. Further the anthropometric comparison was done with the published data from the USA, UK, and Singapore.

Results: Comparative distribution of 6 anthropometric dimensions among different population was done in this study. Minimal differences were noted between Oman and Singaporean recruits in Stature, Sitting Height and Leg Length whereas differences were most pronounced between Oman and Western population (UK & USA). Omani distribution of Thigh Length dimension was midway between Singaporeans and Western population. 95th percentile distribution of Arm Reach of Omanis was comparatively lower to all the population studied. Hip Breadth distribution of Omani population was noted to be similar to Western population whereas Singaporeans had comparatively lower distribution range.

Conclusion: This study has provided an opportunity to recognize the discrepancies involved in selection of Middle Eastern aircrew for western cockpits. This also adds impetus to the scope for application of military recruitment standards suitable to the native population in aiding the ideal man-machine interface. This approach shall consider national policy, the significant anthropometric trends of general population and the procured aircraft profile of the country.