AEROMEDICAL SUPPORT TO THE AVIATION INDUSTRY: 60 YEARS OF EVOLUTION AND A ROADMAP TO FUTURE COLLABORATION - AN IAM PERSPECTIVE

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Abstract

The Institute of Aerospace Medicine is the nodal centre for aeromedical training, research and evaluation in India. While the varied speciality of Aerospace Medicine covers almost every aspect of flying activities. Human Engineering department in general, including ergonomics, anthropometry and aviation psychology (in particular) has regular interaction with the Aviation Industry. This paper will present the IAM experience over the past 60 years in providing aeromedical support to the aviation industry. The paper will also highlight the rapidly growing expertise at IAM, that seeks to keep abreast with the best practices in Human Factors around the world and thus be 'future proof' and industry ready in the 21st century.This paper seeks to sensitise the role of Human Factors experts at each and every stage of design and development of a complete aircraft to the smallest aircrew equipment assembly. It also attempts to emphasise the non-physical or cognitive aspects of Human System Integration (HSI) which is gaining more importance as systems become more complex. The paper would also present a roadmap for future collaboration of Human Factors experts at various critical junctures of design, development, evaluation and certification process.

Keywords: Human engineering; Human factors; Human system integration; Collaboration; Evaluation; Certification