

Editorial

Since its establishment in the year 1953, the Aeromedical Society of India has been engaged in the advancement of the science and art of Aviation Medicine with the fundamental objectives of ensuring optimum functional efficiency of the aircrew and promotion of flight safety. The society has, over the years endeavoured to achieve these objectives by separating and disseminating knowledge of Aviation Medicine to its medical members and the aircrew. Unlike any other discipline, Aviation Medicine draws its sum and substance from almost all the sciences besides medical. This it does by converting all the knowledge available into a form suitable for practical application to the Aviation environment of man as an operator and a passenger. This conversion of knowledge itself needs applied research which has been one of the principal areas of activity of the society.

Total aircraft accident prevention is an idealistic goal. However, this is despoiled with the concept of inevitability of accidents so long as man in the machine remains the sole controller of the man-machine complex. No doubt that "to err is human" which, in a philosophical parlance, is taken to mean, firstly that only humans make a mistake — because a mistake is a conscious realisation of its consequences, and secondly that every mistake has a meaning, that is, there is always a cause or a background in as much as it arises out of a work situation.

The work situation consists, mainly, of man machine interface, work space layout, design of instruments and controls and environmental conditions of cockpit climate, lighting, noise, vibration etc. besides the seating and other features of comfort. Other things that affect the human performance are the occurrence of so called 'minor' or 'major' emergencies due to technical faults or component failures. Human responses to such situations are extremely variable and at times unpredictable under best of circumstances.

Such factors as above and many other permutations and combinations thereof form the backdrop against which the pilot error accidents pose a problem to reckon with. Efforts to investigate all accidents and incidents to localise and remedy the exact cause need the deepest possible scientific investigative approach and research. The feed-back from these type of investigations which enable the aeronautical and aeromedical scientists to identify the provocative and precipitating factors, leading to human error, perhaps, forms the only rational basis of the understanding and implementation of programmes directed towards reducing the magnitude of accident inevitability.