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**Introductory Part**

**MANUAL OF CIVIL AVIATION MEDICINE**  
**PRELIMINARY EDITION — 2008**  
**International Civil Aviation Organization**

*Approved by the Secretary General  
and published under his authority*

INTERNATIONAL CIVIL AVIATION ORGANIZATION

## FOREWORD

In 1970, the Personnel/Training/Medical (PEL/TRG/MED) Divisional Meeting considered that availability of suitable medical guidance material was of importance to the uniform application of the Standards and Recommended Practices (SARPs) in Annex 1, as well as in such fast-moving fields as accident investigation and human factors in aviation. The meeting also recommended that action be taken to provide expert advice to the ICAO Secretariat in support of the preparation of such medical guidance material.

In line with the Air Navigation Commission's (standing technical body of ICAO) wishes, a small Medical Study Group was established for the purpose of assisting the Secretariat in preparing the necessary material. The first edition of the ICAO Manual of Civil Aviation Medicine (Medical Manual), published in 1974, was essentially the result of this work.

Inevitably, since that time, advances have been made both in medical science generally and in aviation medicine. Assistance and advice have been provided by aviation medical specialists from many Contracting States, and their valuable contributions have enabled a second edition of the Medical Manual in 1985 and now this third edition to reflect those advances as they apply to civil aviation medicine in particular. In addition, many excellent comprehensive textbooks and published studies on aviation medicine are now available in world literature.

This edition is intended to complement existing texts by emphasizing the clinical problems encountered in medical certification in civil aviation. It is designed for the experienced designated medical examiner as well as for the aviation medical expert and medical assessor, to aid in the approach and management of intricate borderline cases.

Just as the development and enforcement of standards for medical assessment of civil aviation personnel on an international basis is fraught with difficulties, so is the compilation of a suitable current general medical manual complicated by the heterogeneous nature of aviation medicine and by the economic factors involved. As a necessity certain aspects have to be omitted or can only be discussed in a more cursory manner while, in an attempt to achieve a measure of international uniformity, other more important aspects receive particular emphasis.

The guidance material dealing with medical assessment is intended for the use of medical examiners and medical assessors at the discretion of the Licensing Authorities. The discussion of the application of SARPs is, however, couched in terms intended to assist the Licensing Authority in the implementation of the medical Standards. When making a Medical Assessment, the relevant operating environment should be borne in mind. Applicants engaged in single pilot commercial operations carrying passengers clearly require the most careful medical evaluation in order to reduce the risk of in-flight incapacitation. Those engaged in multicrew operations, where there has been effective incapacitation training, may be considered less stringently. In many such cases flight safety may be adequately protected by an operational condition or limitation applied to the licence.

When consulting the Medical Manual it should be remembered that it is intended as guidance material only and as such has no regulatory status. Its users should, whenever in doubt, always make reference to the text of the current edition of Annex 1 for up-to-date information on SARPs.

While Contracting States issue licences for civil aviation purposes in accordance with their national civil aviation regulations, these regulations are normally based upon the SARPs contained in Annex 1 to the Chicago Convention (1944), which specifies minimum standards only. Thus an individual Contracting State may have regulations additional to those specified in Annex 1 for some reason particular to that

State. Furthermore, the requirements published under any national regulations are the legal requirements of that State, regardless of what may be found in Annex 1.

However, before adding national requirements over and above those of ICAO, a State should carefully consider whether such additional requirements are likely to improve flight safety to a significant degree. The ICAO SARPs have been written as a means of protecting flight safety and have had a consensus agreement from Contracting States, in most cases after extensive discussion involving advice and recommendations from outstanding medical experts appointed by several Contracting States. Additional screening measures, apart from having an adverse financial impact on the State or the aviation industry, may not improve flight safety. Stringent national medical requirements can result in unnecessary restrictions or premature retirement of licence holders. They may also have the consequence of licence holders being reluctant to report illness to the medical examiner or the licensing authority, and this is important from the flight safety viewpoint since the value of the medical examination relies to a large extent upon an accurate medical history. Should States make demands in excess of those included in ICAO SARPs, the goal of harmonisation across Contracting States is not achieved and the transfer of skilled personnel from one State to another is inhibited. It encourages 'medical tourism' where a licence holder, refused a licence on medical grounds in one State because of stringent medical requirements, seeks to obtain one in another, less demanding State.

The main purpose of the Medical Manual is to assist and guide designated medical examiners, medical assessors and Licensing Authorities in decisions relating to the medical fitness of licence applicants as specified in Annex 1. It is, however, envisaged that the manual might also be useful to supplement properly supervised theoretical and practical post-graduate training in aviation medicine. Thus the texts of the manual have been edited so that it may serve also as a textbook, and a tentative outline for a post-graduate course for prospective designated medical examiners has been included.

In this third edition of the Medical Manual, some limitation of contents has been necessary. The scope of the material includes, particularly, guidance on those areas in which difficulties have been experienced by Contracting States.

States are invited to assist in improving this manual by submitting comments to the Organization and by suggesting any pertinent additional information which might usefully be included. Submissions should be addressed to:

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