



Recommendation 812 (1977)¹

Harmonisation of the teaching of aviation medicine

Parliamentary Assembly

The Assembly,

1. Considering the importance to flight safety of the medical screening and surveillance of pilots, navigators and air traffic control personnel ;
2. Believing that responsibility for the medical screening and surveillance of pilots, navigators and air traffic control personnel, and for decisions on whether sick passengers are fit enough to fly, should only be entrusted to doctors with specialised training in aviation medicine ;
3. Concerned that the growth in recent years of commercial and private aviation has not been matched by a proportionate increase in the numbers of doctors in member countries with specialised training in aviation medicine ;
4. Believing that specialised training in aviation medicine, which should be provided under the responsibility of the appropriate authorities in each country, should be sanctioned by the award of certificates and diplomas, for shorter courses and longer courses respectively, and that these courses should be so designed that all certificates and diplomas issued in the member countries of the Council of Europe may be recognised and accorded equal status throughout Europe ;
5. Welcoming the efforts made to this end by the Council of Europe's Working Party on Aerospace Physiology and Medicine, set up under the auspices of the Committee on Science and Technology, and notably by the working party's research group on the harmonisation of the teaching of aviation medicine,
6. Recommends that the Committee of Ministers transmit to the appropriate authorities of member countries, to the International Civil Aviation Organisation, to the European Civil Aviation Conference, and to the Commission of the European Communities, the proposed general outline, drawn up by the Working Party on Aerospace Physiology and Medicine, appended hereto, of a harmonised syllabus for the teaching of aviation medicine.

1. See [Doc. 3973](#), [Doc. 3973](#), report of the Committee on Science and Technology. Text adopted by the Standing Committee, acting on behalf of the Assembly, on 8 July 1977.



Appendix APPENDIX

General outlines of a harmonised syllabus for teaching of aviation medicine

1. General

- 1.1. The origins, importance and place of aerospace physiology and medicine.
- 1.2. The various types of craft : basic facts concerning their functioning and utilisation.
- 1.3. The various categories of flying and ground personnel.
- 1.4. The role of doctors in the aerospace field : as regards the design and operation of craft (human engineering).
- 1.5. The repercussions of aerospace flight on biology and medicine.

2. Physiology and pathology of environmental factors in aerospace

2.1. Factors associated with flight :

- 2.1.1. Factors due to movement : speed, linear and angular acceleration of long or short duration, sudden changes of time zones, sudden changes of latitude, sensory illusions during flight : disorientation and notions of sickness, vibration transmitted by air (noise, US, Is) or by solid matter (turbulence) ;
- 2.1.2. Factors due to altitude : reduction in total pressure (slow and rapid decompression), reduction in the partial pressure of atmospheric gases (hypoxia), temperature changes, ionising radiation (light, UV, IR) ;
- 2.1.3. Difficulties of vision and of observation from the ground ;
- 2.1.4. Other factors (particularly psychological ones).

2.2. Factors associated with airports, and construction and repair workshops.

2.3. Sociological aspects of aviation.

3. Use of aerospace craft

- 3.1. Psychopathological study of the work of personnel on board aircraft and other craft in common use.
- 3.2. Specific problems concerning :
 - 3.2.1. Flying schools ;
 - 3.2.2. Private aviation (flying clubs) ;
 - 3.2.3. Competitive aviation (high speed, high altitude, very low altitudes, acrobatic displays) ;
 - 3.2.4. Helicopter flying, ballooning, gliding, parachuting as a sport ;
 - 3.2.5. Commercial aviation ;
 - 3.2.6. Medical aviation ;
 - 3.2.7. Agricultural aviation ;
 - 3.2.8. Space flights.

4. Physiopathological study of the work of aviators and of aviation ground staff

- 4.1. Flight personnel (circadian rhythm, scheduling, adaptation, sleep, stress).
- 4.2. Airport service staff.
- 4.3. Aircraft workshop and factory staff.

5. Tolerance, adaptation, protection and life-saving

- 5.1. Tolerance and adaptation to the various types of work and the various flight conditions.

5.2. Individual protection :

*individual protection against hypoxia - oxygen masks etc.,
individual protection against noise,
individual protection against acceleration,
individual protection against other disorders.*

5.3. Collective protection :

*cabin with constant differential pressure,
pressure cabin,
noise insulation of cabin.*

5.4. Escape :

5.4.1. Escape from aircraft in flight ;

5.4.2. Escape from aircraft on the ground ;

5.4.3. Escape from aircraft in the water :

*high-performance flights,
space flights,*

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6. Aerospace medicine pathology

6.1. Injuries in aerospace aviation :

*aircraft and glider accident injuries, and emergency treatment,
parachuting injuries,
ejection seat injuries.*

6.2. Injuries due to aeronautical factors :

6.2.1. Hypoxia ;

6.2.2. Frostbite, burns, injuries of various kinds ;

6.2.3. Air sickness ;

6.2.4. Injuries from explosive decompression ;

6.2.5. Fatigue ;

6.2.6. Other injuries.

6.3. Cardiovascular and respiratory pathology.

6.4. Sensory pathology :

*otorhinolaryngology,
ophthalmology.*

6.5. Problems encountered in the transport by air of sick or wounded. 6.6. Neuropsychiatry and neurological conditions.

6.7. Toxicology : in flight ; on the ground ; at airports ; in the aeronautical industries.

7. Selection and aptitude testing

7.1. Physiological selection rules for the various types of staff.

7.2. Psychological selection factors for the various types of staff.

7.3. Means and criteria.

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7.4. Visits to and courses at selection centres.

8. Hygiene and legislation

8.1. Hygiene in the various types of flying craft, and at airports and airfields.

8.2. Flying personnel hygiene.

8.3. Passenger hygiene.

8.4. International air health control.

8.5. Organisational and legislative aspects of aviation medicine in the various countries :

8.5.1. General organisation ;

8.5.2. Medico-legal problems arising out of air accidents ;

8.5.3. Specific medico-legal problems connected with the work of flying personnel ;

8.5.4. Specific medico-legal problems arising out of work in aircraft factories and workshops ;

8.5.5. Other problems.