



*Fédération
Aéronautique
Internationale*



Minutes

of the Annual Meeting of the **FAI Medico-Physiological Commission**

held in Vienna, Austria
from 14 to 16 September 2007

*Avenue Mon-Repos 24
CH-1005 Lausanne
(Switzerland)
Tél.: +41(0) 21/345.10.70
Fax: +41(0) 21/345.10.77
E-mail: sec@fai.org
Web: www.fai.org*

**REPORT ON THE MEETING OF THE COMMISSION
INTERNATIONALE MEDICO PHYSIOLOGIQUE (CIMP) HELD IN
VIENNA 14 -16 September 2007**

Juergen K. Knueppel, MD, Secretary CIMP

Introduction

The CIMP meeting took place in Hotel Erzherzog Rainer in Vienna, Austria. It was held immediately prior to the International Congress of Aviation and Space Medicine because this facilitated representation from more distant nations many of whose delegates were also attending the ICASM. At the commencement of the Plenary Session, Delegates were asked if they had potential conflicts of interest to declare. Inevitably the majority of those present were, or had previously been, employed in the field of aviation medicine. Those were informed that if any had additional interests which could influence their actions, this must be communicated in confidence, to the Secretary.

Those present were very appreciative of the preparatory organisation done by Dr Bernhard Schober, a Vice President and the Austrian delegate. He had organised the meeting place and accommodation, obtained sponsorship for a splendid Heurigen and also the working lunches.

Three sessions are covered by this report:

- 1. The Bureau meeting on Friday 14 September at 20.00 hr,
- 2. The Technical Meeting on Saturday 15 September, 09.00 – 17.00 hr.
- 3. The Plenary Meeting, Sunday 9.00 – 13.00 h.

(Note that a glossary of abbreviations and acronyms is at the end of the report.)

The CIMP Bureau Meeting, Friday 14 September.

Attended by:

Peter Saundby, President

Phivos Christophides, Vice President

Pedro Ortiz, Vice President

Bernhard Schober, Vice President and Local Organiser.

Rene Maire, Past President

Juergen Knueppel, Secretary

Kazuhiro Shimada, Vice President

Max Bishop (Secretary General of the FAI)

At the Bureau Meeting, the previously published agenda was reviewed and confirmed.

The principle issues for debate were identified as the anti doping policies of WADA and the development of a Leisure Pilot Licence by EASA. The Secretary promised that the minutes of the meeting would be in draft form by the afternoon of the Sunday and distributed as soon as possible after review by the President.

The CIMP Technical Meeting, Saturday 15 September

This was attended by:

Peter Saundby, President (United Kingdom)

Bernhard Schober, Delegate Austria

Christian Ecker, Observer Austria

Phivos Christophides, Delegate Cyprus

Oldrich Truska, Delegate Czech Republic

Max Bishop (FAI Secretary General)

Eero Vapaavuori, Delegate Finland

Thierry Villey, Delegate France
Juergen Knueppel, Germany;
Eckhart Schroeter, Observer Germany
Samuel Samuelsson, Delegate Iceland
Antonio Dal Monte, Delegate Italy
Kazuhito Shimada, Delegate Japan
Marja Osinga, Delegate Netherlands
Claude Preitner, Delegate New Zealand
Pedro Ortiz, Delegate Spain
Rene Maire, Delegate Switzerland
Tony Segal, Alternate Delegate United Kingdom
Geoffrey W. McCarthy, Delegate United States of America
Jacek Kibinski, Representative of Microlight Commission (Poland)

Scientific Sessions:

For the opening presentation Dr. Geoff McCarthy explained the WADA doping procedures, as implemented by the NAA in the US. Further information was given by Max Bishop concerning the political relationships of WADA with the FAI as an International Federation. Greater action was clearly expected by WADA of the FAI and this question was the subject of later debate.

For the second presentation, Dr. Juergen Knueppel reported on the German Human Factors Working Group. A new tool is a program called "FLY TOP". This HF program approaches not just individual pilots, but also organizations such as flying clubs and flight schools in a 'systems' approach. During a series of "training hours" the group includes wives, technical personnel and bartenders in the club house. The task is to identify potential flight safety related failures and behaviour with an examination of all incidents occurring during the previous months. When the individual contributions of the group are collected, the second step is to construct practical solutions to the problems exposed. Common findings are missed pre-flight checks, inappropriate attitudes, and failures of inter personal communication.

Next and in a related presentation, Dr. Pedro Ortiz explained his teaching of Human Factors to groups of glider pilots. Rather than a straight lecture, he utilised case studies. With audience participation and the imaginative use of domestic chairs he could demonstrate good and bad techniques. He advocated the adoption of a safety system for the aero-clubs based on HFACS principles.

Dr. Bernhard Schober presented his paper on back pain suffered by those helicopter pilots who use night vision goggles. This paper had also been accepted for the ICASM. The new helicopter helmets fitted with NGVs and associated batteries impose additional weight and strain on the cervical spine and this causes concern following cases of neck strain. This could become an issue for civil helicopter operations and contests. It has been found necessary to undertake physiotherapy and neck exercises for military pilots and this may also become needed for civilian Helicopter Pilots.

Dr. Rene Maire presented a paper on aviation cardiology, the "Brugada Syndrome". His paper has also been accepted for the ICASM. The condition is genetic and is important because it can cause sudden death in young persons. He demonstrated two different cases and explained how to differentiate the risk levels and apply this to JAR certification.

Dr Phivos Christophides gave a detailed report of the tragic Helios accident in which a commercial airliner climbed to altitude with no pressurisation. There were many salutary aeromedical lessons. Despite valiant efforts by the cabin crew, all aboard perished.

Professor Antonio Dal Monte presented a revolutionary concept for a safety cage cockpit that on the event of a major impact would separate from the main structure. This concept has been successfully adopted by Formula 1 racing cars and speedboats, reducing the death toll in those sports. While there have been advances in glider cockpit design intended to protect the pilot, none have been so radical. However the death rate from accidents remains unacceptably high and some action is needed. However there was not the expertise present to make a proper evaluation and it was considered that this should be a matter for OSTIV. It was recommended that his paper be presented at the next OSTIV meeting in Luesse/Berlin during the Gliding World Championship to take place in Summer 2008.

Dr. Peter Saundby, from his experience as Medical Adviser to the British Gliding Association presented a series of cases where medical factors were a putative cause of the accident. He argued that ideally there should be both autopsy evidence of disease and that the flight path of the aircraft was consistent with a loss of control. Even with autopsy evidence it was not always possible to confirm that disease was the cause, but without autopsy evidence the flight path alone could offer evidence of incapacity.

Mr Jacek Kibinski, representing the Microlight Commission, but himself from Poland presented an analysis of the various European Microlight Pilot Licensing Systems. These vary widely, many nations requiring the JAR Class 2, but no medical control at all exists for the French national microlight federation (FFPLUM) and a simple declaration endorsed by a General Practitioner is adequate in the UK. In these two countries there has been an expansion of activity and they both lead in Microlight Sport contests. Their accident rates have been similar to the rest of General Aviation and so he argued strongly that from the point of view of his Commission , no medical control at all was needed!

Debates:

Following the scientific presentations, debates were organised to address the two key issues that had previously been identified, WADA and EASA. The outcome of these two debates would form the basis of resolutions to be put to the Plenary Meeting on the following day.

WADA issues:

The illicit use of pharmaceuticals to enhance performance has been a cancer of many sports. Rightly WADA is determined that this must be eliminated. To date the testing of airports contestants has exposed some use of cannabis and legitimate use of pharmaceuticals without a TUE. Dr McCarthy explained the use of amphetamines by the United States Air Force and said that this practice was declining, although still used in certain limited circumstances. Amphetamines or earlier versions of the same drug had also gone out of use in other Air Forces. The meeting affirmed that there was no medical evidence to change the previous advice to the Executive Board of the FAI but appreciated that WADA expected the FAI to be more proactive. Evidence from random testing exists that the rules are insufficiently understood by contestants and cannabis is an unacceptable flight safety hazard. It was agreed that an educational programme should be the initial priority. The President would draft an appropriate resolution and there would be a need for a member to work with the FAI Office in the development of the programme.

EASA issues:

The JAR-FCL 3 Class 2 medical certificate has never been accepted by many pilots in Europe because the same 1% level of fitness is stipulated for both Class 2 private and Class 1 professional Pilots. Differences between JAR Class 2 and ICAO also exist in the frequency of medical examination. The numbers of light aircraft in Europe were compared unfavourably with these in the USA. France, that represents about 10% of European light aviation, had never accepted the JAR Class 2 and the evidence is that medical regulation inhibited aviation in Europe. While the EASA Class 1 will follow the JAR-FCL 3, it was reported that the new EASA Class 2 will be aligned closely to the ICAO Class 2 and not the JAA; although a number of points are yet to be resolved. The President of CIMP is a member of the EASA sub group on the medical aspects of licensing and will continue to keep CIMP members informed of progress. There is also another EASA group called MDM.032 that is tasked to develop the Leisure Pilot Licence and this group contains a doctor. There was considerable concern expressed that EASA might develop and impose Europe wide an untried system that could contain unrecognised defects. There are two issues, firstly there should be a Europe wide standard of fitness that is mutually recognised and secondly there needs to be arrangements for ensuring that pilots meet these standards, or reduced standards when mitigating measures are applied. Because health care systems vary widely, it was considered that no one system validation pilots could be universally applied and so long as the outcome standard was met, variation did not matter. There was no evidence that any of the existing systems are unsafe.

It was agreed that the ICAO Class 2 as utilised in France represented an adequate level of fitness. Where pilots did not meet this standard, public safety could be ensured by mitigating measures. These should use the limitations already published in JAR-FCL 3 and identified by codes. It was also agreed that the minimum standard, even with mitigating measures, should never fall below the European private driver standard.

There was further discussion on the various systems extant in Europe for ensuring that pilots meet the published standards. It was agreed that because all existing systems had been shown to be safe, they should be accepted as Alternative Means of Compliance. However any new method of assessing pilots should first be subject to proper trials or small scale studies. It was agreed that this concern should be made known to EASA.

Before closing, it was agreed that both these issues debated should become the subject of formal resolutions for the Plenary Meeting.

CIMP Plenary Meeting, Sunday 16 September.

This was attended by the following Officers and National Delegates.

Peter Saundby, President (United Kingdom)

Bernhard Schober, Delegate Austria

Phivos Christophides, Delegate Cyprus

Oldrich Truska, Delegate Czech Republic

Eero Vapaavuori, Delegate Finland

Thierry Villey, Delegate France

Juergen Knueppel, Germany;

Samuel Samuelsson, Delegate Iceland

Antonio Dal Monte, Delegate Italy
Kazuhito Shimada, Delegate Japan
Marja Osinga, Delegate Netherlands
Claude Preitner, Delegate New Zealand
Pedro Ortiz, Delegate Spain
Rene Maire, Delegate Switzerland
Tony Segal, Alternate Delegate United Kingdom
Geoffrey W. McCarthy, Delegate United States of America

Others present as observers:

Max Bishop (FAI Secretary General)
Jacek Kibinski, Representative of Microlight Commission (Poland)
Christian Ecker, Observer Austria
Eckhart Schroeter, Observer Germany

Apologies from those unable to attend:

Dr. Ernst Hollmann, Alternate Delegate Germany
Dr Colm Killeen, Delegate Ireland
Dr Janusz Marek, Delegate Poland
Dr Gregory Marek, Alternate Delegate Poland

The minutes of the 2006 meeting, held in Lausanne Switzerland had been distributed electronically and no comments had been received. The meeting approved these minutes.

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National Reports.

The original versions had been distributed prior to the meeting and this record summarises the principal points. Full copies of the National Reports and the President's report to the FAI General Conference are attached. Attendees were asked to summarise their reports and respond to questions.

Finland: Insurance for recreational flying is tremendously high and increased user fees raise costs. Reduced flying hours adversely affect pilot proficiency.

Germany: Waivers for Class II can now be done by Class I AMES. Glider Pilots may start at age 14 and no medical certificate is required before solo flight. Human Factors objectives have been published by the JAA, but scientific evidence for their effectiveness is lacking.

Italy: AvGas prices are very high. There is a problem of compliance with regulations. Accident rates are reducing but this is not due to regulation. Many new airstrips have been built (>400m) and in northern Italy there are 36.

Spain: Information on misuse of drugs and proper therapeutic use is distributed to Spanish pilots. AME courses are now organised by universities in Spain. More medical specialists are joining the aviation medicine field (i.e. psychiatrists). Non reporting of accidents and incidents is a problem.

UK: The NPPL is now in extensive use. About 1% of cases are referred. A difficult case arose when a pilot blamed an episode of unconsciousness but evidence was inconsistent. This was thought to be an example of psychiatric denial.

Japan: Renewal of medicals in recreational pilots is performed annually, in contrast to the ICAO recommendation of 2 years interval. Refractive surgery results have to be reported to the CAA.

Switzerland: A national system for sports pilots. A serious accident occurred in Basle to an aircraft preparing for a record.

Cyprus: No additions to the written report

Netherlands: Use of antidepressants in balloon pilots and possible use by others. This led to further discussion because it is an issue in commercial flight operations.

Austria: There is a new Austrian Society of Aviation Medicine, to cover EASA / AME issues.

A large number of AMEs gathered in Salzburg at "Hangar 7" of Red Bull. Es will be trained in Spatial Disorientation by AMST 2008.

Additional points raised in discussion: Beta Blockers have been noted in those flying model aircraft in contests. The Essential Requirements laid down by the European Parliament include a reference to pilot age. How is this question to be addressed? For recreational aircraft the quality of accident investigations varies widely across Europe, and if this is to be the ultimate audit, it must be improved. Members should remember that 'cimp-info' is open and include confidential information. If there is sufficient interest there will be a Meeting of CIMP Delegates during the OSTIV Meeting /WGC 2008 Berlin/ Luesse, August 2008.

Report of the President: The President has to make an annual report to the General Conference of the FAI and this has been submitted. A copy is attached to these minutes.

Medical Advice to the FAI Board

At the formal meeting, CIMP adopted the two following resolutions: The first concerning WADA addressed to the Executive Board of the FAI. The second concerning EASA, to the President of the FAI with the request that it be used as a draft of a letter to the Chief Executive EASA.

1. WADA

The evidence from random testing of air sports competitors is that two problems exist. Firstly the inappropriate use by a few individuals of illicit recreational drugs. Secondly the failure by a few to obtain TUEs for legitimately prescribed therapeutic drugs. The CIMP advises the FAI Executive Board that money available should be spent on an educational package directed to these two problems. Such a package would provide a natural extension to the existing human factors programmes that inform of the hazards of therapeutic drugs when taken by aviators. A member of CIMP can be made available to advise the FAI Office on the detailed development of this educational package.

2. EASA

In the opinion of CIMP, the Medical Implementing Rules of EASA concerning the Leisure Pilot Licence should be restricted to defining the outcome standards of fitness necessary, together with the need for mutual recognition by all EU States. For an unrestricted pilot the standard should not depart too far from the existing ICAO Class 2 as utilised in France, although the requirement for colour discrimination can be waived. When a pilot fails to meet this standard, they become subject to mitigating limitations. For these the limitations and associated codes in JAR-FCL 3 should be utilised. Even when limitations are applied, the absolute minimum standard of fitness

should never fall below the European standard for a private driver as defined in the EU Directive. The methods by which individuals are assessed as meeting the defined standards should be contained in Acceptable Means of Compliance. This is because health care systems vary between the nations with differing availability of past clinical records. All existing European systems of assessment have been shown to be safe and can be accepted as an AMC. However there should be great caution in developing new methods of assessment and there must always be a multinational small scale pilot trial. The imposition of a new Europe wide system without preliminary trials is likely to lead to trouble.

In summary, it should be the task of EASA to define agreed standards and associated limitations. It should be the task of individual national authorities and their airports organisations to ensure that individual pilots meet these standards or those limitations are known.

Election of Officers:

In accordance with FAI procedures, the following were elected as officers:

President Dr Peter Saundby, United Kingdom

Vice President Dr Phivos Christophides, Cyprus

Vice President Dr Kazuhito Shimada, Japan

Vice President Dr Bernhard Schober, Austria

Secretary Dr Juergen Kneueppel, Germany

CIMP Programme 2007-9:

In accordance with a previous decision, the CIMP Meeting in 2008 will take place in the Olympic Museum, Lausanne during the second weekend in June, that is 13 - 15 June 2008. The main topics are likely to be WADA, EASA, Human Factors and cooperation or relations with other aeromedical organisations. Current policy is that when the ICASM is held in Europe, CIMP will be held on the week-end prior. (It is now known that ICASM09 will be held in Zagreb, Croatia on xx September 2009.) However Dr Thierry Villey proposed that the 2009 CIMP meeting be held in France.

Working Groups established for specific purposes.

1. WADA, President will coordinate. Dr Kazuhito Shimada, Dr Eckhart Schroeter, Dr Rene Maire, Dr Geoffrey W. McCarthy; Dr Peter Saundby.

2. EASA: The WG comprises all delegates from EASA member countries. As the President of CIMP is also Technical Officer (Medical) of EAS, he will be in the lead.

3. Human Factors: To continue developing human factors concepts. Dr Juergen Kneueppel, Dr. Pedro Ortiz and Dr. Bernhard Schober.

Juergen Kneueppel
Secretary CIMP,
16 September 2007

Abbreviations:

CAA Civil Aviation Authority
CAB Civil Aviation Board
CPL Commercial Pilot License
CRM Crew Resource Management
CT Computer Tomography
EASA European Aviation Safety Agency
ECG Electro Cardiogram
EGU European Gliding Union
ESAM European Society of Aviation Medicine
FFPULM French Microlight Federation
GAISF General Association of International Sports Federations
GP General Practitioner
HF Human Factors
HFACS Human Factors Analysis and Classification System
ICASM International Congress of Aviation and Space Medicine
ICAO International Civil Aeronautical Organization
JAA Joint Aviation Authority
JAR FCL Joint Aviation Regulation – Flight Crew Licensing
LSST-M License Sub Sectorial Team (Medical) of the JAA
MDM O32 EASA light sport aircraft working group
MRI Magnetic Resonance Imaging
NAC National Aeronautical Council
NPPL National Pilot License
NVG Night Vision Goggles
PPL Private Pilot License
SD Spatial Disorientation
TMGs Touring Motor gliders
TUE Therapeutic Use Exemption
UL Ultra Lights
WADA World Anti-Doping Agency
WG Working Group