TECHNICAL COMMISSIONS OF THE FAI

Proposals for the General Conference of the Fédération Aéronautique Internationale
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The aim of this paper is to suggest how the FAI might better organise the resources currently available within FAI to serve the needs of the Air Sport Commissions and FAI national members.

1. **Introduction:** Until a few years ago, the FAI was solely concerned with sporting regulations. More recently, members have with increasing frequency sought assistance on technical matters from the FAI. This has always been provided, but on an improvised basis. Often these pleas for help are urgent and arise from some regulatory threat.

1.1 The 2006 FAI plan identifies the great knowledge base available within the Federation and the need the to deploy these resources in the support of the Air Sport Commissions, organisers of contests and the National Aero Clubs that comprise FAI membership. In Goal 5 of Mission 1 of the plan, the collection and provision of this expertise is addressed.

1.2 During the General Conference held in Santiago, unanimous approval was given to the extension of FAI support in the technical and regulatory fields.

2. **Europe Air Sports (EAS):** The experiences in Europe offer some indication of the way ahead. The founding of EAS some twenty years ago to co-ordinate regulatory and related matters on behalf of sport aviation has provided useful experience in anticipating and influencing regulatory change. EAS is affiliated to the FAI and many individuals work with both organisations.

2.1 The lessons learnt are that regulatory authorities remain primarily concerned with commercial aviation with little expertise in the fields of sporting and recreational aviation. Technically competent and carefully considered submissions are usually accepted, although it is absolutely essential to be represented at meetings by individuals who are professionally equal to those who represent the authorities. Oppressive or inappropriate legislation often arises from ignorance rather than malice on the part of authorities. Hard evidence is needed to counter the arguments from commercial interests who will be intent on capturing the regulations for their own positions.

3. **FAI requirements:** Based upon the experience of EAS, the need of the FAI is to classify those technical fields with which it should become involved; to identify though the FAI membership those individuals who have the professional expertise, energy and time to contribute; and to organise these to be able to lead national and international authorities in the drafting of regulations or challenge inappropriate regulations. Lastly this has to be done with little or no FAI expenditure.

4. **Technical fields:** The technical fields that could be expanded with benefit to the FAI are discussed below. In practice they will be dictated by the professional fields of those experts who may be available to the FAI. In the first stage existing capabilities within the following aeronautical fields should be assembled for the benefit of all:

4.1. Design Airworthiness: For safety reasons aircraft are constructed to meet established standards. Whether aircraft are factory or home built, these standards are necessary. Standards will vary according to the role of the aircraft and change with advances in the science of aerodynamics, and with the introduction of new structural materials or methods of construction. The expertise required for establishing the airworthiness of air sports aircraft can exist only within the air sports movement, but the FAI can enable world wide co-operation and sharing of knowledge. To prevent creditable developments being prevented by current regulations, provision is essential for experimental developments under appropriate professional oversight.

4.2. Continuing Airworthiness: Once built, aircraft need to be maintained to the same airworthy standard. Recreational aviation aircraft are commonly factory built, but pilot maintained. Organisational structures have to be established in order to enable safe maintenance, repairs and modifications without constant and expensive use of paid engineers for aspects that can be carried out by pilots and owners.

4.3. Licensing and Operations: This is primarily concerned with the training and assessment of pilots. Although conventionally within licensing, medical fitness belongs to a separate professional field. The minimum knowledge, skills and attitudes required to fly the various types of air sport aircraft need to be defined, although holding a licence can only indicate that the individual has once reached a certain level. In reality, the development of piloting ability is a life-long process and this is especially relevant to success in contests. The FAI, through the Air Sport Commissions has long regulated the operation of sporting contests and this has influenced indirectly other flying activities.

4.4. Medical fitness: The human pilot is an inherent part of the control loop. Third parties including passengers, pupils and those on the ground, need to be protected. Existing measures to ensure medical safety in different nations vary in cost and effectiveness. This merits continuing FAI involvement in this field.

4.5. Airspace and Navigation: The FAI has long been concerned with navigational systems in order to record sporting achievements and already has great expertise in this field. Also, navigational capability with its supporting technology is the mechanism by which different users of airspace remain separated. In the competition for airspace with commercial air transport, accurate navigational capability must be the key to efficient use, thus leaving sufficient room for air sports. The FAI has to develop this field of activity and must become proactive rather than reactive, otherwise we are simply left to protest after airspace has been lost. The FAI has of necessity used navigation systems such as GPS to record sporting achievements and the same technology is now available for wider use.

4.6. Safety and Accident Investigation: The ultimate audit of all activities is the safety record. For propriety and independence, the organisation within the FAI that deals with safety should be separate from other Commissions. This task will inevitably require diplomatic relationships with official investigating bodies. The FAI office already collects some accident statistics and could be relieved of this task.

4.7. Environmental: Air sports pilots flying in close relationship to nature will be sympathetic to environmental considerations. The FAI needs to build and maintain our existing ability to lead on these issues, but also to challenge inappropriate legislation directed at greater polluters that could inhibit our activities as well.

4.8. Educational: The FAI needs the ability to reach out to those who are not yet involves in the air sports. This capability must be retained.

5. **Options:** A wealthy corporation would seek expertise by employing consultants. That is an expensive option and it is unlikely that the requisite expertise actually exists outside FAI membership. Certainly the necessary enthusiasm and drive is only to be found within our membership and the experience of EAS in appointing persons with no prior air sport experience proved disappointing.

5.1 FAI Working Groups. In the past, the FAI has established specialist working groups, but these have often proved short lived for reasons of lack of status and finance. Working groups need to be selected from those who are already active within the FAI.

5.2 FAI Technical Commissions. Fortunately, a successful model does exist in our Technical Commissions. Their structure asks for a delegate from each FAI National member and Air Sport Commission, and even if that delegate is inactive, a point of contact is enabled and material is circulated by email. Costs of meetings are borne by sponsoring National Aero Clubs or Commissions and additional FAI expenditure would have to be exceptional and approved in advance by the EB. Although this proposal will require an increase in the existing number of Technical Commissions, it is important that these are not regarded as second-grade to the other Commissions within the FAI structure. The Air Sport Commissions sanction and oversee sporting contests, but the Technical Commissions will have to fight real battles on our behalf. Such as unnecessary regulation or technical, airspace and navigational system issues. There should be equal status and rights for all Commission Presidents.

6. **FAI Administration:** The FAI Office in Lausanne is overloaded. Therefore any change must relieve, rather than add to the workload. Some items now done in the office might be transferred out. There should be no expectation that the Secretary General has to attend every meeting, although they would remain open to him or any other member of his staff. Similarly the FAI President or any Executive Board member can attend all Commission meetings by right.

7. **Air Sport Commissions (ASCs):** These primarily sanction and administer contests, but they do have some technical responsibilities, such as safety and training. It is suggested that these non-contest functions are reported to the relevant technical commission through the delegate who has been appointed by the Air Sport Commission to the Technical Commission. This would enable co-ordination and cross information, but because the role of the Technical Commissions remains advisory, no power would be lost.

8. **Existing Technical Commissions:** There are four established FAI Technical Commissions and OSTIV, an affiliated organisation.

8.1. CIEA. The FAI Aviation and Space Education Commission. This largely addresses individuals who are not yet members of National Aero Clubs.

8.2. CIACA. The Amateur built and Experimental Aircraft Commission. Although a Technical Commission, contests are held in this field. The skills and organisation required to construct aircraft safely are similar to those required for the continuing airworthiness of factory build aircraft. The role of this Commission could be expanded to meet that need.

8.3. CIMP. The Medical Commission should continue to seek cost effective means of ensuring appropriate pilot fitness standards and supporting aero-medical functions.

8.4. Env C. The Environmental Commission seeks to improve the 'footprint' of air sports activities and to challenge threats of inappropriate legislation.

8.5. OSTIV. The Gliding Scientific and Technical Organisation has three panels, the Meteorological Panel, the Sailplane Development Panel and the Training and Safety panel. Advice from all would be needed to form the nucleus of any new FAI Technical Commissions. The problem here is to preserve and expand the ethos and expertise of OSTIV throughout any changes.

9. **Proposed four new Technical Commissions.**

9.1. Design and Initial Airworthiness. This is an expansion of the existing Sailplane Development Panel of OSTIV to propose and update the airworthiness standards of all airsport aircraft.

9.2. Training and licensing. This is a pooling of responsibilities from existing Air Sports Commissions and OSTIV to a Technical Commission. Representatives from this Commission would provide the FAI interface with regulatory authorities.

9.3. Navigation and Airspace. This would include not only the recording of sporting achievements using navigational equipment such as GPS, but also to support the fight for airspace for Sporting aircraft, utilising the same navigational capability. Much work has already been done within several Commissions and existing personnel working in this area could provide the nucleus of a new Commission. There was once an FAI airspace group but that suffered from inadequate status within the FAI and has lapsed. A separate paper covers proposals in the Navigation and Airspace area.

9.5. Safety and Accident Investigation. This is necessary to collect the data that provides an audit of activities in order to assemble an FAI database for use generally and to provide facts to resist adverse comments on our activities. Accident investigation requires training and sometimes the provision of independent expertise. Many FAI national members and some Commissions already work in this field and such expertise should be pooled in a new Technical Commission. This Commission would relieve the office of some routine work.

10. **Naming of Commissions**.

This can be emotive, especially when functions are transferred from existing bodies. However a case exists for retaining the tradition of using the French language because it offers greater opportunity for selecting acronyms that form words that are not already in use by other bodies.

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Annex: Statute changes proposed

Annex to paper on FAI Technical Commissions

To allow for the creation of new Technical Commissions, the following wording is suggested. The proposed principle is that a trial period should precede permanent establishment of a new Technical Commission unless General Conference decrees otherwise.

FAI Statutes

New 5.7.1.5 New Technical Commissions. Technical Commissions dealing with other fields of common interest across FAI may be established on a trial, temporary or permanent basis. They may be established either by General Conference or, between Conferences, by the Executive Board. If the Commission is to continue beyond the next General Conference, such Executive Board action shall be confirmed at that Conference. Detailed Terms of Reference for any new Technical Commissions shall be produced, and agreed by the body establishing the Commission. All such Commissions including those not made permanent (see below) shall follow normal Technical Commission procedures including making a report to each General Conference while they are in existence, or after disbandment to the next General Conference.

5.7.1.5.1 Temporary Commissions. A temporary Commission may be established for a specific purpose with the initial intention of disbandment after its work is done. Such a Commission is similar to an FAI Working Group (which see), but follows the more formal procedures for FAI Technical Commissions. After practical experience, it may be decided that a Commission originally created to be temporary, should be made permanent.

5.7.1.5.2 Permanent Commissions. A Commission that has the potential to become permanent will first be created on a trial basis. After experience is gained by such a Commission, it may either be disbanded, made temporary or made permanent. To make permanent, a resolution to this effect shall be passed by General Conference by a two thirds majority vote in accordance with Statute 5.1.2.1. If made permanent, reference to the new Technical Commission will then be added to the FAI Constitution, particularly under Statute 5.7.
