To: Recipients of IGC Agenda
From: Chairman IGC GNSS Flight Recorder Approval Committee (GFAC)

Report to the IGC Plenum on the FAI Commission on Airspace and Navigation Systems (CANS)

by Ian Strachan, IGC Representative to CANS, and CANS Secretary

1. **2010 CANS meeting - Frankfurt**. The 2010 CANS Plenary meeting was held on 1-2 February at the Landessportbund-Hessen (LSBH) Sport and Conference Centre in Frankfurt. This is a location close to the international hub airport and offers low-cost accommodation. Nations represented were Australia, Czech Republic, Denmark, Finland, Germany, Norway, Slovakia, Sweden, UK and USA. Commissions represented were Ballooning, Gliding and Parachuting. This was the most productive meeting yet of this relatively new FAI Technical Commission and covered a substantial amount of information that is useful for air sports. The minutes are available at: www.fai.org/system/files/cans_minutes_2010.pdf and some matters are summarised below.

2. **National and Commission matters**. The main positions and interests of the nation or organisation present were given. Some points included the following:

2.1 Australia. ADS-B was operational above FL 290, and the Australian Civil Aviation Safety Authority (CASA) is carrying out a trial at lower levels. The Australian AOPA position was that ADS-B is the answer to many safety concerns.

2.2 Czech Republic. A large volume of previously military airspace in the East had been freed of restrictions. The EU Schengen agreements (removal of border controls), had been used to reduce restrictive rules for sport aircraft crossing into Austria, Germany, Poland and Slovakia. A 200 x 50 km mountain soaring area had been established up to FL 190, and when this was active, other aircraft were excluded.

2.3 Europe Airsports (EAS). In Europe there was much Class E airspace, which under ICAO procedures was not subject to ATC clearance for flights. However, airlines often wanted more Class C which requires ATC clearance. EAS had contributed to a resolution of the European parliament that required the European Aviation Safety Authority (EASA) to concentrate on its core responsibilities, mainly to Commercial Air Transport, and not to interfere with light GA and sport aviation operating outside controlled airspace. It was said that the European Gliding Union (EGU) was the most active of EAS associations. Much valuable information was on the EAS web site: www.europe-airsports.fai.org See also www.egu-info.org.

2.4 Denmark. Preserving airspace for sport aviation was a continuous fight. A report had been made to the FAI Environmental Commission on restrictions due to birds and other wild life. The question was "who owns the airspace", is it Commercial Air Traffic or all of us?

2.5 Finland. Controlled airspace round Helsinki had been expanded and maintaining free airspace was said to be "a continuous struggle". An airspace re-design was to take place, first upper and then lower. There was also a large area devoted to Unmanned Air Vehicles (UAV).

2.6 France. Information from the French CAA indicates that we may be able to continue to fly with Mode A-C transponders, Mode S only being mandatory in particular airspace such as the Paris area.

2.6 Germany. No change in airspace was reported since the last meeting. The only transponders to be used in the future were Mode S. Microlights were not part of the Deutsche Aero Club (DAeC) structure, different to many nations. It was also said that there were restrictions in bird areas.

2.7 Netherlands. It was reported that two pilots in The Netherlands had been fined for flying near a nature conservation area, despite a lack of clarity of the margins required.

2.8 Norway. Smaller airports were being used by low-cost airlines, with applications for more Controlled Airspace.

2.9 Russia. The Russian delegates had been prevented from attending due to visa difficulties, but emailed a report which is an annex to the CANS minutes. This was critical of rigid airspace clearance and utilization procedures which limited the development of general and sporting aviation. They appealed to FAI to write to the Russian Authorities with a view to opening up non-controlled airspace for other aviation activities such as events covered by FAI Air Sport Commissions.

2.10 Sweden. Some airports used by GA are threatened by environmental constraints, and some have been shut down.

2.11 UK. There was a trend to remove the current "differences" from ICAO procedures, which was not advantageous to sport aviation. The UK CAA had a policy emphasising "the consumer", that is, the airline passenger. This did not take into account the 15% of flights in Controlled Airspace by GA, which was also a "consumer" of CAA facilities.

2.12 USA. Preserving free airspace was said to be a continuing battle and transponders were said to be needed near certain airports. Many gliders in the Reno and other areas had been fitted, because a collision had occurred in August 2006 between a glider and a business jet east of Reno. It was said that there were some 5000 gliders in the USA. A Memorandum of Agreement (MOA) had been signed in November 2009 between the US Federal Aviation Administration (FAA) and the Soaring Society of America (SSA) for the development of a phased plan for demonstrating ADS-B. Battery-powered ADS-B transceivers would be used in gliders. This showed considerable progress in relations between the national aviation Authority and a Sporting Association, particularly in the development of low-cost and low power-drain aircraft devices. The MOA can be seen at Annex G to the CANS minutes.

2.13 Commissions - IPC. It was reported that three Netherlands parachute clubs near Amsterdam had closed because of air traffic issues, and this should be noted by other airsports in case they were affected later.

2.14 Commissions - Gliding. More gliders had been fitted with the Flarm proximity warning system and some nations had made it mandatory for large gliding competitions. Flarm was now available as an integral part of some IGC-approved GNSS Flight Recorders, of which there were now 45 different types from 18 manufacturers. A lower standard of recorder had been introduced under the name "IGC Position Recorder" for Silver and Gold badge flights only.
See: www.fai.org/gliding/system/files/igc_approved_frs.pdf
and www.fai.org/gliding/position_recorders

3. **Other bodies**.

3.1 EUROCAE and Eurocontrol. The European Organisation for Civil Aviation Equipment (www.eurocae.eu) was said to be preparing protocols for the introduction of ADS-B. Eurocontrol was also preparing for ADS-B and a date of 2015 for initial use had been mentioned. A Eurocontrol paper had been seen that considered arrangements for the large numbers of light GA and sport aircraft. In particular, the use of a simplified version of the US design of Universal Access Transponder (UAT) was being considered for "GA in VMC", which could be useful to sport aircraft where electronic identification was required by the ATM authorities, as long as such equipment was low-cost.

3.2 FAI - Statistics. FAI statistics from member nations were not accurate enough. The general scale of numbers of "Air Sport Persons" in an FAI nation should be easily identifiable. So should the numbers of air vehicles, because many would be officially registered. Vladimir Foltin mentioned CANSO, the Civil Air Navigation Services Organisation (www.canso.org), as a possible source of some statistics.

3.3 International Committee on GNSS (ICG). Sponsored by the United Nations Office for Outer Space Affairs (UNOOSA), this group looks to achieve compatibility, interchangeability and interoperability between the growing number of space-based navigation systems. Bernald Smith has attended several meetings as an invitee of the US State Department. At the last meeting in Sydney, Australia he presented a paper outlining why the ICG effort is very important to sporting aviation. In addition, the US concept of the Universal Access Transceiver, an ADS-B device working at 978MHz, was discussed.

3.4 RTCA. Bernald Smith's report on the US RTCA to the FAI General Conference is at Annex A to the CANS minutes. It was said that RTCA had a good liaison with its European equivalent EUROCAE.

3.5 Other organisations. These included the American Institute of Aeronautics and Astronautics (AIAA), the Royal Aeronautical Society (London) and the Society of Automotive Engineers (SAE) www.sae.org. Ian Strachan is a committee member of the RAeS and a member of a working group that includes the AIAA, the US FAA and NTSB, EASA and other national regulatory bodies. Bernald Smith is an ex AIAA board member.

4. **Aircraft user bodies**.

4.1 Europe Airsports (EAS). There was a Memorandum of Agreement between EAS and FAI which ensured that they did not interfere with each other.

4.2 IAOPA and regional AOPAs. The International Council of Aircraft Owner and Pilot Associations (www.iaopa.org) and regional AOPAs were discussed. It was said that AOPAs often knew little about sport aviation but were powerful lobbying bodies. In one nation the local AOPA had attended meetings with the Regulatory Authority and tried to represent Sport Aviation as well as their own interests, and this situation had to be changed after representations by the Aero Club.

5. **Navigation and Avionics**.

5.1 ADS-B. Bernald Smith briefed on progress in implementing the GPS-based Automatic Dependent Surveillance - Broadcast system (ADS-B). It was now operational in the USA in Alaska, Arizona and Florida, and would shortly be in the Gulf of Mexico and the Louisville and Philadelphia areas. Full mandatory implementation in controlled airspace in North America was originally 2020 but could now be 2018. ADS-B was operational in Australia, and in parts of China.

5.1.1. 1090ES and UAT systems. Bernald said that the 1090ES system, originally developed at 1090MHz for transponders, could have interference limitations when used in high density traffic airspace. Mitigation work-arounds were already being discussed. He predicted that the more advanced Universal Access Transponder (UAT) design would supersede it.

5.1.2 Paper on ADS-B Systems. Bernald presented a paper on ADS-B (Annex F to the CANS minutes) that he had recently given to the Sailplane Development Panel of OSTIV. This covered 1090ES, Flarm, the Universal Access Transponder (UAT), VDL4, and FAA studies on equipment for aircraft without electrical generation such as gliders.

5.1.3 Sweden. VHF Data Link 4 (VDL-4) ground stations are at 12 locations in Sweden, and some flying clubs and flight schools use the VDL-4 system to track their aircraft.

5.2 Radio Frequency Separation. There was a trend by Regulatory Authorities to require 8.33 KHz separation of radio frequencies. This involved a change from existing aircraft radios. This situation should be watched so that sport aviators were not presented with large costs for new radios. A problem for us is that when one area goes to 8.33KHz spacing, all the radios used in that area need to be changed so that interference is avoided from older radios with 25KHz spacing.

6. **Global Navigation Satellite Systems (GNSS).**

6.1 GPS. The US GPS system was said to have 31 satellites in orbit, of which 24 are on-line at all times.

6.2 GLONASS. The Russian GLObal NAvigation Satellite System (GLONASS) has 18 satellites. Some notes from the Russian Aviation Federation on GLONASS are at Annex H to the CANS minutes.

6.3 Beidou/Compass. The Chinese Beidou/Compass system currently has four geostationary satellites and is essentially an area enhancement system like WAAS for North America and EGNOS for Europe *(Beidou 2 is planned to have a full constellation of some 30 satellites, the majority in oblique orbit for primary fix data)*.

6.4 Galileo. Funding and a schedule for the European Galileo system (http://ec.europa.eu/transport/galileo) has finally been agreed *(On 7 January 2010 a contract was announced with OHB System AB for the first 14 Galileo satellites, to be in orbit by mid 2014. Further contracts will follow for more satellites).*

7. **Status of Commission Representatives**. Commission representatives on FAI Technical Commissions only have Observer status, compared to National delegates who have full status and voting rights. There are over 80 nations in FAI and only 10 Air Sport Commissions (ASCs). This situation is clearly unfair, aside from being somewhat of an insult to the ASCs which are a key part of FAI. For the last two years proposals have been made to correct this, but have not been taken forward. IGC should now do so, see Annex A to this report.

8. **The next CANS meeting**.

8.1 Dublin. CANS wanted to have the next plenary on the day before the FAI General Conference and at the same location. The idea was to include delegates from nations that had previously not contributed to CANS, particularly from the middle and far east, who would already be at Dublin for the FAI conference. However, this was turned down by FAI management.

8.2 Frankfurt. After the rejection of the Dublin proposal, the CANS bureau agreed that the next CANS plenary would be held at LBSH in Frankfurt from 28-29 March 2011. This was announced by the CANS President in his address to the FAI General Conference in Dublin, confirmed by emails to FAI nations and Commissions by the CANS secretary, and included on the FAI web pages. Arrangements were made with LSBH which is not only a low-cost place to stay but only two metro stations from the international hub airport.

8.3 Lausanne. In late December 2011, FAI management changed the venue from Frankfurt to Lausanne. The meeting was to be held in the conference hotel, the Aulac. The CANS secretary issued emails to this effect, together with maps and instructions on how to get to the Aulac from Geneva airport.

> 8.3.1 Change of Lausanne venue. In mid January, FAI management changed the CANS meeting venue from the Aulac to the Maison du Sport International (MSI), some 2km from the Aulac. For Commissions such as IGC, such a change may be of little consequence because most delegates arrive on the day before. But in the case of a small commission such as CANS, European delegates generally travel on the day of the meeting which for this reason does not start until 14:00. Similarly on day 2, the CANS meeting ends not later than 15:00 so that some delegates can travel back on the same day. This arrangement has worked well for Frankfurt but may not do so for Lausanne, particularly when the meeting is at MSI rather than the Aulac.

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Annexes: A . Proposed change to FAI By-Law 5.3.9

International Gliding Commission
of the
Féderation Aéronautique Internationale

From: President, IGC

Appropriate date 2011

To: FAI Statutes Committee
FAI Secretary General

Copy: FAI Executive Board

FAI Technical Commissions – Status of Commission Representatives

Dear friends,

The status of Air Sport Commission representatives on FAI Technical Commissions has been raised at the last three IGC Plenaries. It is now time to propose a change of FAI By-Laws to the FAI General Conference.

The existing FAI ByLaw 5.3.9 says that Air Sport Commission representatives "may speak, but have no vote at such meetings". This effectively reduces them to Observer status, a position that we simply do not understand when the Air Sport Commissions have important roles to play across all FAI activities. In addition, it makes Commission nominees ineligible to stand for Bureau positions on Technical Commissions, which are therefore occupied exclusively by National delegates. This is particularly anomalous when there are over 80 Nations in FAI and only 10 Air Sport Commissions. The position of ASC nominees on the General Sporting Commission (CASI) is much more reasonable.

The IGC position is that all nominees to FAI Technical Commissions should have equal status whether nominated by a Nation or an Air Sport Commission.

At annex is a proposal for a change to ByLaw 5.3.9. This should be placed on the agenda of General Conference and meanwhile brought to the attention the Statutes Committee so that they can consider it at their next meeting.

Yours sincerely,

Bob Henderson, IGC President.

Annex: Proposal for ByLaw 5.3.9

For the FAI General Conference Agenda

IGC proposal to FAI to give equal status to National and Air Sport Commission nominees to FAI Technical Commissions

Background: There are over 80 Nations in FAI but only 10 Air Sport Commissions (ASCs). The Air Sport Commissions, formed of National delegates, have a vital role to play in all FAI activities.

In this context it is not understood why ASCs essentially only have Observer status on FAI Technical Commissions (ByLaw 5.3.9). Their nominees have no vote and are not eligible to stand as Bureau members.

It is therefore proposed that ASC and National nominees to FAI Technical Commissions should have equal status to those nominated by Nations. A small change to ByLaw 5.3.9 is proposed below. It is noted that in the FAI General Sporting Commission (CASI), ASC nominees have equal status to those nominated by Nations and this should also be the case in FAI Technical Commissions.

Existing Bylaw 5.3.9. Each Air Sport Commission may nominate a representative to attend meetings and to receive papers of each of the Technical Commissions. Such representatives may speak, but have no vote at such meetings.

Proposed change to: 5.3.9. An Air Sport Commission may nominate a delegate to a Technical Commission. Such delegates shall have the same status and voting powers as National delegates.
