



Fédération Aéronautique Internationale

106th FAI Annual General Conference

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Agenda Item # 8.3


Report on the FAI Expert System and Expert Groups

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Agenda # 8.3 – Report on the FAI Expert System and Expert Groups

Agenda


- General Overview
- Actual situation
- Tasks and first results
- Planned actions for 2013

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Agenda # 8.3 – Report on the FAI Expert System and Expert Groups

Agenda

- General Overview

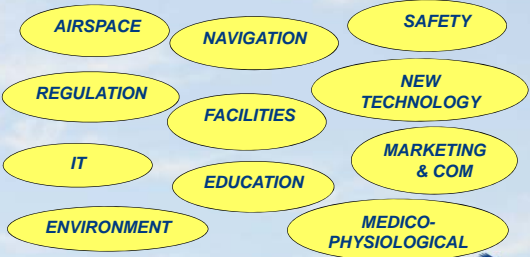
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Agenda # 8.3 – Report on the FAI Expert System and Expert Groups

1. General overview

1.1. The requirement for an “FAI Expert System”

Following our strategy, the «FAI-Expert System» covers 11 important areas:



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1. General overview

1.2. The structure for the “FAI Expert System”

8 Expert Groups

Airspace	Expert Group	AEG
Navigation	Expert Group	NEG
Safety	Expert Group	SEG
Regulation	Expert Group	REG
Airport Facilities	Expert Group	FEG
New Technology	Expert Group	NTEG
IT	Expert Group	ITEG
Marketing and Com.	Expert Group	MCEG

3 Technical Commissions

Education	TC	CIEA
Environmental	TC	EnvC
Medico-Physiological	TC	CIMP

Techn. expertise and general support:

- for all Bodies in FAI
- as FAI-Observers by international Organisations like ICAO, IFACTA, IATA, Eurocontrol, etc
- ...

1. General overview

1.3. The Expert Groups in the “FAI Expert System”

As reminder: How are the Expert Groups working

Philosophy:

A group of experts working on demand when required, with the option for quick reaction

Organisation:

- 1 Point of Contact (PoC) as Coordinator
- 5 - 10 identified Experts
- working by e-mail, if required by skype

Tasking and reporting Processes:

- Tasking for specific issues by FAI HO to the POC
- Reporting from POC to FAI HO, Secretary General / EB

Output:

➔ **Information & Results to all FAI members (by HO)**

1. General overview

1.4. The benefit of the “FAI Expert System”

- FAI is able to handle a lot of new challenges with an Expert-System of 8 Expert Groups and 3 TC’s
- Very efficient system with clear policies, defined goals, mid-term action plans and standardised Tasking & Reporting processes
- Higher output in a wide field of technical expertise in favor of EB, NAC’s, ASC’s, without increasing costs
- Information & results to all members at the same time by Head Office
- **Strengthen the organisation through more activities in airports and «showing the flag of airports» with observers in international aviation organisations !**

Agenda

- Actual situation

2. Actual situation

6 Expert Groups are established and started operations!

- **Total 36 Experts from 15 countries** ensuring a high-level international spectrum
- **The overall documentation is ready** for the 6 Expert Groups
- **The FAI EB monitors closely all important activities**
- **EB-directors are coaching/supporting specific actions:**
 - Otto Lagarhus (Safety; Regulation)
 - Beat Neuenschwander (Airspace; Navigation)
 - and Sec Gen: Jean-Marc Badan (IT; New Technology)
- **A «Top Level Letter»** from FAI President to International Aviation Organisations was sent out **«to show the flag»**

2. Actual situation

The document status:

A) Framework for FAI Expert Groups :

B) Policy and Goals for :

- Airspace
- Navigation
- Safety
- Regulation
- IT
- New Technology

C) Lists of Experts for all 6 Expert Groups established

(6 Expert Groups, 36 Experts, 15 Countries)

2. Actual situation

Today: The Expert System is in operation with 6 Exp.Gr. and 3 TC's !

- Framework established
- Exp Gr with Expert names established
- Policy and Goals defined
- Task list established
- Action plan defined

Next planned EG
MCEG and FEG

FAI Expert-Groups		
Airspace	* Expert Group	AEG
converting from CANS		
Navigation	* Expert Group	NEG
Safety	Expert Group	SEG
Regulation	Expert Group	REG
New Technology	Expert Group	NTEG
IT	Expert Group	ITEG
Marketing & Comm.	Expert Group	MCEG
Facilities	Expert Group	FEG
FAI Technical Commissions		
Education	Techn. Comm.	CIE
Environmental	Techn. Comm.	EnvC
Medico-Physiological	Techn. Comm.	CIMP

Techn. expertise and general support

- for all Bodies in FAI
- as FAI-Observers by intern. Organisations like ICAO, IFACTA, IATA, Eurocontrol, etc
- ...

Agenda

- Tasks and first results

3. Tasks and first results - FAI top level action

«**Top level-letter**» from FAI about Airspace, dated April 4th, 2012 to 8 International Aviation Organisations:

- ICAO Intl. Civil Aviation Organisation
- IFATCA Intl. Fed. of Air Traffic Controllers Association
- IATA Intl. Air Transport Association
- IFALPA Intl. Federation of Airline Pilots Association
- IBAC Intl. Business Aviation Council
- IAOPA Intl. Council of Aircraft Owners & Pilot Association
- EASA European Aviation Safety Agency
- EUROCONTROL Europ.Org. for Safety of Air Navigation

FAI - Concerns about: - reduced access to airspace...
- increasing regulations and costs

➡ FAI/HO Information to all NAC's and FAI Commissions

3. Tasks and first results - FAI top level action

Letter to International Aviation Organisations

FAI's position:

...*The sky is big enough for us all. It requires a sensible approach by airspace administrator using, where necessary, the best available technology to allow fair access for all.*

...*The FAI is becoming increasingly concerned by the negative influence of regulation on air sports. The FAI, as the World Air Sports Federation, has therefore decided to take on a greater role in regulatory matters.*

... *we will appeal to our national member organisations to take more active position with national authorities when subjects such as airspace concepts ...*

3. Tasks and first results - FAI top level action

Very positive feedback !

- ICAO and IATA welcome an increased role from FAI in regulatory matters and invite FAI to take part in the CDM process (Collaborative Decision Making)
- Eurocontrol invites FAI to join the « Agency Advisory Board forum»
- IAOPA sees it as an opportunity and starting point for cooperation between FAI and IAOPA

➡ **The first step of the overall GOAL: «to show the Flag» is achieved !**

3. Tasks and first results - FAI top level action

- 3.1. Airspace) Report from Beat Neuenschwander
- 3.2. Navigation
- 3.3. Safety) Report from Otto Lagarhus
- 3.4. Regulation
- 3.5. IT) Report from Jean-Marc Badan
- 3.6. New Technology

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3.1. Airspace - initial Tasks given:

1. Analyse the ICAO meeting structure affecting airspace and make proposals to FAI HO for effective FAI monitoring and representation
2. The Collaborative Decision Making technique from ICAO: Is it a useful tool for FAI and its members ?
 - a) what are the criteria to become part of the CDM process in relevant area
 - b) what positive impact can a proactive use of CDM have for FAI and its members
3. Provide suggestion for further tasks, based on their experience and expertise. Highest priority should be given to airspace matters of global importance impacting airport activities.

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3.1 Airspace – Report / Proposals

First result: good report with analysis and proposals from AEG!

1. The ICAO meeting structure; proposal from AEG ?

FAI should make a bid to be included in the NGOs that are acknowledged by ICAO. An FAI representative needs to be funded on a long term basis. An annual report should be made on ICAO matters to the FAI Gen.Conf.
2. ICAO's «Collaborative Decision Making technique», is this a useful tool ?

Analysis: CDM allows all members of the ATM community to participate in ATM decisions that affect them.

Proposals:

 - **FAI should write a letter to ICAO and ask to be included in the CDM process.**
 - **At the NAC level: Encouraging good relationship between NAC and NAA;** Countries with national committees (NAA, commercial, military and sporting organisations represented) show positive results !
3. Further tasks ? No further proposals from AEG has been provided.

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3.2 Navigation – initial Tasks given :

1. ICAO Question structure for navigation matters and make a proposal to FAI/HO for effective FAI monitoring and representation.
2. Analyse the avionic equipment market for traffic awareness/collision warning systems for light/sport aircraft («situation awareness devices»), with the objective of producing an overview of available alternatives and their merits for various air sport activities.
3. NEG should provide a proposal for further tasks based on their experience and expertise. Highest priority should be given to navigation matters of global importance impacting airport activities.

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Agenda # 8.3 – Report on the FAI Expert System and Expert Groups

3.2 Navigation - Report / Proposals

First results: good report with analysis and proposals from NEG!

1. ICAO Question; Proposal from NEG = Same answer as for AEG

FAI should make a bid to be included in the NGO's acknowledged by ICAO.
2. Analyse the avionic equipment market for traffic awareness and collision warning ...

*Some results have been covered in past CANS minutes and their Annexes. The point should also be made that **to be useful on a worldwide basis, the device needs not only to be suitable for Sports aircraft in terms and cost and power drain, but also needs to be approved by the NAA's.** Technical approval process can be longly and costly.*

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3.2 Navigation - Report / Proposals

3. NEG suggestion for further tasks / global importance :

- **Sat Nav:** The most important long term development is **the transition from radar-based ATM systems to satellite based systems** like US/GPS, Russian GLONASS, European GALILEO and People's Republic of China BEIDOU 2.
- **CAT Growth:** The huge forecast growth of Comercial Air Transport until 2030 should be recognised – **ATM – Airspace impact on Sport and recreational aviation:** This is a coming issue for AEG.
- **ATM Rules and Procedures:** The consequences of airspace violations by sport aircrafts, could be very serious to our credibility with organisations such as NAA's and ICAO, the main bodies that we need to influence in order to maintain freedom to operate in many parts of the world.
An EB statement to this effect would be helpful and appropriate wording could also appear in top level FAI documents.

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3.3 Safety – initial tasks given

- **The IPC letter – FAI evaluation and suggested response**
 - Evaluate the content and suggestions in the letter from IPC (attached as WP to the group) and, if applicable, make recommendations for changes in the FAI Safety Expert Group policy statement.
- **Overview of FAI Safety Work**
 - Produce a broad overview of the safety work taking place in the various Air Sport Commissions (ASCs) and provide suggestions for effective cooperation and communication between such ASCs in order to benefit from being part of the FAI structure

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3.3 Safety – Preliminary Comments - 1

➤ Task 1: The IPC letter – FAI evaluation and suggested response

The SEG notes the IPC views, as follows

- There is no doubt that the work of the IPC within the safety area is state of the art and probably a «best practice» within FAI.
- However, there are still areas for improvement which gives the present wording relevance.
- The SEG majority believes better wording could be found, satisfying the EB and IPC.

The SEG suggests that 2 Safety Experts are charged with drafting an alternative wording for the FAI Safety Policy.

- This shall then be forwarded to the full SEG for approval / modification, and then to the EB for approval / modifications

3.3 Safety – Preliminary Comments - 2

➤ Task 2: Overview of FAI Safety Work – preliminary comments; work in progress

- The practice in the various FAI Air Sport Commissions vary widely.
- The SEG has not found a high degree of commonality in approach to the safety issue
- The methodology and practices range from high focus/activity to little focus and no specific safety activities.
 - This must not be read as to mean there a no focus on safety as such; we have been identifying specific activities, and it should be noted that all of the FAI ASCs have «imbedded» safety in their operations.

3.4 Regulation – initial tasks given

➤ In the opinion of the REG, provide answers to the following questions :

- What 3 potential regulatory changes that the REG is aware of pose the potential for causing the most damage to air sports by creating unnecessary restrictions or increase in cost?
- What actions are suggested by REG to minimize the effects of the regulatory changes identified in a. above ?

3.4 Regulation – Preliminary Comments - 1

➤ Task 1: Major regulation threats to air sports

- The increase in user fees and/or the increased application of user fees
- The broad introduction of UAVs (imposing critical limitations on other activities)
- Equipment requirement resulting from Next Generation / SES implementation
- Critical application of environmental issues
- Increased requirements for formal licensing of air sports persons to carry out their activities (medical, training, experience etc.)

3.4 Regulation – Preliminary Comments - 2

➤ Task 2: What actions are suggested by REG to minimize the effects of the regulatory changes identified in 1. above?

- The REG is of the opinion that the constant presence of the FAI views and lobbying at various levels of applicable regulators/organizations must be ensured.
- Failure to ensure effective FAI presence/lobbying at international and regional levels may prove detrimental to air sport.
- Stimulating NACs to lobby national authorities will also be an important success factor in ensuring our freedom to practise air sports.
- FAI management (EB/ASCs/RVPs) must ensure relevant actions.

3.5 IT

➤ Group started its operation in June 2012

First task is to:

- Analyze the possibility to open FAI data to the NACs, ASCs and event organisers
- Design a database that can be used for public access
- Extract data from the main database for public access
- Plan access rights for this data

➤ Result will be a working interface to the current FAI data

➤ The group will also act as advisor for FAI IT projects

3.6 New Technology

➤ Group started it's operation in August 2012

First task is to:

- Find a solution for live tracking, including presentation and scoring, that covers all FAI disciplines that can benefit from tracking
- Establish minimum requirements for flight (technical) evidence

➤ **Other goals:**

- Improve reliability of measurement methods
- Report to ASCs and CASI of possible changes needed to sporting code because of new technologies



3.6 New Technology

- **Work has started by collecting experiences of live tracking projects of different disciplines.**
- **Matters that have to taken into account are for example:**
 - Data transmission coverage (satellite, GPRS, VHF etc.)
 - Data transmission and hardware cost
 - Legal restrictions
 - Linking data to existing applications i.e. scoring or simulators
 - Approaching technologies (i.e. ADS-B)
- **The group will also act as reference in terms of electronic devices used in air sports.**
- **Results will be gathered as a reference document and recommendations to EB and ASCs**



Agenda

- Planned actions for 2013



4. Planned actions for 2013

FAI Executive Board / Head Office:

- Letter(s) to ICAO, IAOPA and Eurocontrol
- Nominating FAI representatives in Int. Organisations
- Tasking Expert Groups with new issues
- Coaching/supporting/monitoring POC's / Expert Groups
- Information about results to all NAC's and Commissions



4. Planned actions for 2013

FAI Expert Groups:

Airspace:

1. **establish a project plan** to develop a quantitative assesment of how much airspace has been reduced, on a year to year basis, from air sports:
 - * a mapping of where air sports are practiced
 - * computing the «total air sports area»
 - * a time graph of how much of this airspace has been lost for our purposes during the last 10 years
2. **establish a list of main criteria on airspace** from the airports viewpoint, as tool for further discussions with respective authorities.
3.



4. Planned actions for 2013

Navigation

1. **Make a deeper study about the «sense and avoid» technology for UAV's and the consequences for VFR traffic (needed equipment ?)**
Info: A «top level briefing» to FAI is planned in summer 2013 about: Sense and avoid live tests and first results in VFR airspace with the government and the national test facility in Switzerland
2. **Establish a list about important criteria for future cockpit equipment** in sports aircraft, to guarantee the airports development (light and low cost features) and to be accepted in new defined airspace structures
3.



4. Planned actions for 2013

SAFETY

1. Produce an overview of the safety work of the Air Sport Commissions (ASCs) and finalize a number of suggestions for effective cooperation and communication between such ASCs in order to benefit from being part of the FAI structure.
2. Finalize review of FAI Safety Policy and provide new/modified text and layout
3. Continue refining the „Improved Safety through Shared Responsibility (ISSR)“ concept, a concept seen as a potential major development
4.



4. Planned actions for 2013

REGULATION

1. Based on the action suggested to meet the „Top 5“ regulation threats, provide advisory strategies to be used by FAI internationally, affiliated regional organizations and NAC/ASCs
2. Establish closer ties with major international and regional players on the regulation arena, especially ICAO (w/ECAC), FAA and EASA (mainly through EAS); arrange discussion sessions between REG and EAS for info sharing.
3.



4. Planned actions for 2013

IT

and

NEW TECHNOLOGY

First actions have not been achieved yet and will constitute the actions for 2013.



Conclusions

- The FAI Expert-System with wide aviation expertise is established and available at low cost
- The Expert Groups are working
 - ready to take new assignments
 - waiting **to assist you!**
- FAI will be involved and more recognised by international aviation authorities



aiming at sustainable development of airport activities !



Thank you for your attention

