



*Fédération
Aéronautique
Internationale*

Minutes

of the Annual Meeting
FAI Environmental Commission

held in Neu-Isenburg, Germany
on 17 January 2009
at ERM GmbH

March 15, 2009

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ATTENDEES

PRESENT

Dr. Michael Goth	President and Delegate (Germany)	(MG)
Bernald Smith	Vice-President, Delegate (USA) and IGC representative	(BS)
Diana King	Delegate (UK)	(DK)
Tore Båslund	Alternate Delegate (Norway)	(TB)
Rolf Bjorkman	Alternate Delegate (Sweden)	(RB)
Dr. Wolfgang Scholze	Alternate Delegate (Germany)	(WS)

APOLOGIES FOR ABSENCE

Robert (Bob) Carlson	Delegate (Canada)
Luciano Giannini	Delegate (Italy)
Kåre Liasjö	Vice-President, Delegate (Norway)
Leo Caminada	Delegate (Switzerland)
Thomas Senac	CIVL Delegate
Steve Ireland	CIA Delegate

1. Introduction

The President welcomed delegates and regretted that again the attendance was not greater. There was a brief discussion of this problem, which was thought to be due to lack of finance and other resources and also the many other priorities for members' attention.

2. Minutes

The Minutes from the 2008 meeting had not been circulated. DK offered to prepare some from the old notes that were available and also to take the 2009 Minutes.

3. President's Report

MG gave a presentation and a copy which is attached to these Minutes.

Objectives of the EnvC.

Raising awareness among the NACs and ASCs has proved difficult. In some cases there is compliance with environmental concepts but people are not aware of the underlying environmental reasons for their action. The President has the opportunity to present reports at the bi-annual Commission Presidents' meeting and that has raised awareness among ASCs, to the extent that several have now appointed environmental delegates to EnvC.

Influence at government agencies has been limited because of lack of manpower. Increasing the number of active delegates is important because more attendance and ideas are needed. MG's attendance at FAI General Conference raises awareness and there is support for the environmental work from the Executive Board including the President. It was agreed that NACs would only make the effort to attend if they feel that there is some benefit to them.

Approach to achieve objectives

The aim should be to get environmental issues on the agendas of all ASCs and perhaps to have an EnvC representative attending ASC meetings. ASCs should be encouraged to identify the opportunities and threats that face them on their environmental options.

Presidential Activities

During the year, MG attended meetings of FAI ASC Presidents and Executive Board. He is also the Nature Protection & Environmental Commissioner of Baden-Württemberg Luftsport Verband (BWLTV) taking care of local environmental affairs. He also attended the Schleswig-Holstein Award Ceremony of Sport Audit Luftsport certified clubs (see below report of WS).

EMS

EMS is available and has been implemented by its approval at the General Conference, but there has been no activity to make use of it. It may be necessary to simplify this and make it more practical. MG suggested that the German Sport Audit Luftsport might be adopted to assist with this and also that environmental and safety topics could be linked to achieve the requirements. FAI event organizers are already required to confirm that they comply with environmental standards and an environmental check-list. The 'Green Champions' document from Germany has now been translated into English and it was agreed that this should be placed on the EnvC website. WS would check that this would be permitted and would review the document for sections that are relevant to air sports. FAI News should also be used to draw attention to it.

[Post-meeting note: WS has discovered that the document is already available in both German and English on the German Olympic Sports (DOSB) website at www.dosb.de/de/sportentwicklung/sportstaetten-und-umwelt/materialien/. It is intended that a link will be created from the FAI EnvC website to the DOSB website.]

Future Activities

The ASCs need to be persuaded that environmental matters are the responsibility of all, rather than solely the EnvC. BS suggested that individuals need to be recruited and supported at all levels (ASCs, NACs, Clubs) to have authority and to take responsibility for environmental matters. People and organizations may be persuaded to move from a position of hostility to environmental policies to a neutral position, such that they may undertake environmental activities if it is of benefit to them for financial or other reasons. There was a discussion of the most effective mechanism to persuade people to comply with environmental standards and it was thought that this may be best achieved by peer pressure and voluntary commitments rather than regulation and enforcement.

4. Vice Presidents' Reports

- 4.1 BS reported that he had been invited by the US State Department to attend as an observer at a meeting of the UN International Committee on GNSS, which has the potential to achieve environmental objectives such as noise abatement. BS had attended to consider whether FAI should become involved.

- 4.2 BS had also been involved in a site survey linked to safety surveys of air sport aerodromes, as part of the OSTIV Training and Safety Panel (TSP). Issues considered had included noise, and safety of fuel stores, which have environmental as well as safety impacts. BS recommended that the EnvC should attend or communicate with OSTIV TSP and Sailplane Development Panel, to encourage the adoption of environmental considerations in their work. TB commented that there is a great need for aircraft to be designed or approved to run on lead-free fuels. WS reminded the meeting that Europe Air Sports had successfully lobbied for Sports and Recreational Aviation (SRA) to be exempt from the Emissions Trading Scheme. EnvC was sceptical about the wisdom of this, but recognised that the exemption buys time in which adjustments can be made. The Deutscher Aero Club (DAeC) has been preparing action to deal with this topic when required and WS suggested that the European NACs should coordinate in this area.
- 4.3 BS also mentioned the complexity of disposing of composite materials, which would be increasingly significant in future.
- 4.4 TB gave a presentation on behalf of Kåre Liasjö, explaining the environmental plans and project developed in Norway for SRA. A copy of the presentation is circulated as Annex to the Minutes. These plans were well received and delegates congratulated Norway on this initiative. TB proposed that the FAI's EMS should be simplified as far as possible to make it more useable at grassroots level.
- 4.5 TB also reported that Norway had been developing work on the increased cost or cessation of use of 100LL fuel (AVGAS) which, being lead-based, is not environmentally acceptable. MOGAS, the alternative fuel, is not suitable for all aircraft engines because of the ethanol (alcohol) content, which is likely to be increased by governments. TB presented figures to show that the use of MOGAS can supply significant cost savings as well as reduced carbon emissions, which can over time offset the cost of aircraft modifications. There is a need for manufacturers to supply the technology to facilitate the modifications and for the authorities to support these developments. There can also be significant cost savings in using microlights for training and for glider towing. TB proposed first that the FAI should get engaged in the 100LL issues, to help to remove the need and use for it. He also proposed that a standard set of figures on the costs should be developed to demonstrate the worldwide financial impact of changing fuels. Experts would be needed to help to verify the figures produced in Norway and all delegates were asked to seek appropriately qualified individuals who could assist with this work. TB's documents would be circulated to explain the mechanism used.

5. Airsport Commission Reports

IGC

BS reported that IGC now required all international championship organizers to certify that they meet local environmental standards and requirements. BS will provide an environmental report to all IGC meetings.

CIVL

There is some pressure to comply with environmental requirements, because participants launch and fly from sensitive areas.

6. EnvC Projects - FAI Code for Environmental Management Systems for Air Sports Activities

6.1 Status and Implementation

MG reported that the FAI EMS Code had received general support from the ASCs, with detailed comments being received from IGC and CIA. EMS had been presented at the meeting of the Commission Presidents and also at the General Conference where it was presented as finalized project of EnvC. Copies of the final version were tabled. Norway had then submitted comments which were critical because it was thought that the standard and its adoption would be too costly and complex for small to medium organisations to undertake, which would result in low levels of use and therefore reduced attention and priority in FAI.

6.2 The German “Sport Audit Luftsport” Approach

WS presented the outline of this approach, with a suggestion that it could be used as a proxy mechanism for organisations to achieve EMS. The full German approach to achieve the European Eco-Management and Audit Scheme (EMAS) for Air Sports is a four-layer step-by-step process, in which respondents are led through a series of questions and checklists in order to complete each level of the Scheme. Sample documents and tools are supplied to enable the respondent easily to prepare the required paperwork.

Step I is sufficient to ensure that the club or other organisation has complied with its corporate environmental responsibilities, so that if there is a problem on their site it becomes the responsibility of the individuals committing the offence. This therefore benefits club officials by satisfying their personal corporate legal responsibility. Experience has shown that the time required to complete this stage is about 2 hours to complete the questionnaire plus, if shortcomings are discovered, any further time to bring operations up to required standard.

Step II moves on to review indirect impacts of an operation and the ongoing environmental impact and consequences of any shortcoming.

Step III is a quality system and management plan designed to ensure a long term high quality environmental standard.

Step IV introduces wider aspects of environmental management.

A certificate is awarded at completion of each Step and completion of all four Steps with all relevant documentation is equivalent to the achievement of EMAS, an equivalent standard to ISO 14001, which are both acceptable standards to demonstrate compliance with the FAI EMS. Any flying activity achieving this stage would therefore qualify for the FAI EMS.

The certification at each level is done by appropriately trained and audited agents, who are appointed and paid by DAeC. The auditors visit a sample of clubs, aiming to visit all clubs every 3 years. The auditor inspects and certifies the applicant activity, rather than the whole site, so that each applicant is assessed on the activity that it is responsible for. The scheme has credibility because it follows ISO and EMAS, which are international rules. Compared to EMAS, which costs several thousand Euros to achieve and requires a professional adviser, the Sport Audit Luftsport requires no external expert and costs from 150 Euros at Stage I to 250 Euros at Step III for DAeC members. Non-members pay extra. The certification is valid for 1 year at Step I, 2 years at Step II and 3 years at Step III.

A pilot scheme has been run in the German state Schleswig-Holstein, where take up has been 50 % of air sport operators/clubs. The majority have achieved Step I, with 3 out of a total of 35 participants progressing to Step III.

The separate sections of the documentation can be downloaded from the DAeC website. WS explained that the system has been effective in Germany, but that other countries might need an adapted version. TB commented that the scheme is similar in concept to the proposed Norwegian scheme. He suggested that the EnvC should prepare a simple system along the lines of Activity 6 of the Norwegian document.

6.3 Election of EMS Approval Committee

This was deferred until such time as the Committee was required. MG would establish a Committee when needed.

7. New Governmental Challenges

Delegates discussed NPA 15, which proposes to bring environmental topics into EASA's sphere of responsibility. Delegates were concerned that the FAI EnvC is bypassed by such developments, because EnvC is not a member of Europe Air Sports.

WS agreed to take responsibility for keeping MG informed on any environmental topics arising in the European context. All delegates were asked to take responsibility for monitoring any environmental issues of relevance to SRA and for bringing any issue that is potentially important to a wide range of countries to MG's attention, so that appropriate action can be considered.

8. Reports of Delegates

8.1 UK

DK presented a report, which is attached to these Minutes. The British Gliding Association hope to recruit an environmental specialist, who has shown interest in identifying and developing environmental projects within gliding clubs. A discussion session on 'greener gliding' would be included in the BGA annual conference for gliding club officials.

The British Aerobatic Association reports that aerobatics in powered aircraft continue to suffer from concerns over noise.

The Light Aircraft Association reports that the major concerns relate to exhaust gases and the noise footprint. Complaints in the vicinity of aerodromes continue to be common, even for quiet aircraft, including gliders.

The British Microlight Aircraft Association will during 2009 launch an environmental scheme covering a wide variety of topics, based on 'Reduce, Re-use, Recycle'. The government is planning 'eco towns' in several UK locations, intended to be new towns built on environmental principles. Several of the short-listed sites are on recreational aviation aerodromes and objections have therefore been lodged by air sports.

Numerous applications continue to develop windfarms near aerodromes. The UK Civil Aviation Authority is a statutory consultee and they pass on information to air

sports to enable objections to be registered if appropriate. Air sports attempt to work amicably with developers, to negotiate acceptable projects and not to object to plans that are not a threat to air sport activity.

Europe Air Sports has persuaded EASA that aircraft below 5.7 mt MTOM are to be excluded from the Emissions Trading Scheme. This is seen by many in air sports as a significant achievement, avoiding a huge bureaucracy (and cost) for the light aviation community in Europe.

8.2 Sweden

RB reported that attempts have been made to establish an environmental group, but that there has been insufficient interest. It is thought that the failure of ASCs to attend the FAI EnvC indicates that it is not a priority. Attempts to start an audit system have also made no progress.

Problems have been encountered with restrictions being placed on airfield operations, which are sometimes accepted by clubs in order to avoid further challenges to their activities. Airfields are being lost to industrial and housing developments and it has been difficult, though not impossible, to establish new airfields.

8.3 Germany

WS presented a report, which is attached to these Minutes. He reported that the publication on ICAO charts of Aircraft Relevant Bird Areas had resulted in a reduction in the number of complaints. Pilots are observing the request to avoid overflying below 2000 feet and pilots and ornithologists are positive about the idea. The reduction in problems means that there is now no likelihood of external (governmental) enforcement.

The Federal Environmental Ministry has funded environmental protection material relevant to air sports, which, after some delay for discussion and approval, will be presented at AERO 2009 and published on the DAeC website. The main topics in the material will be incorporated into the training and examination for all types of German pilot licences. It will be implemented under German law but it has not yet been worked out how the system will fit with the EASA pilot licensing proposals in NPA 17. Retrospective qualification will not be required, but environmental training will be introduced into refresher and check flights. Examples of knowledge required include the importance of good environmental principles and the effect of aviation on wildlife.

8.4 USA

BS reported similar challenges to the UK ones of eliciting any response from people on environmental matters and a shortage of environmental experts. There are also problems with aerodromes being closed down for housing developments. There have been some problems with complaints about noise or emissions and some developments close to airports have created difficulties. BS predicted that the worldwide economic situation could lead to problems for sporting aviation.

9. World Air Games

MG reported on discussions and reports on the World Air Games at the Commission Presidents' meeting in October. MG is the environmental liaison officer for WAG. An Environmental Impact Study has been completed on a lake where hang gliders will be launched by speedboat.

10. ICAO Workshop on Aviation and Alternative Fuels

The delegates discussed whether the FAI should be represented at this workshop, to promote the point of view of sporting and recreational aviation. The main emphasis of the meeting is likely to be commercial air transport, but if general aviation issues are included in the discussions, it could be of interest to FAI members. No funds are available from FAI, but it was agreed that MG would ascertain whether we should attend and if so, to ask Bob Carlson to attend or, as a minimum, to obtain a report and materials of the meeting.

11. Finances

MG reported that there is no specific budget, but that the FAI will consider applications for project funds when required. The FAI is now receiving licensing fees from the Red Bull Air Races and that it is intended that these funds will be made available to the Air Sport and Technical Commissions.

12. Elections

BS nominated Dr. Michael Goth to continue as President and he was unanimously elected.

RB nominated Bernald Smith to continue as Vice-President and he was elected with four votes in favour and one abstention.

TB nominated Kåre Liasjö to continue as Vice-President and he was elected with three votes in favour

MG nominated Mrs. Diana King as Secretary and she was elected unanimously.

13. Next meeting

The next meeting would be held on Saturday 30 January 2010 or Saturday 6 February 2010 at Neu-Isenburg, Germany. MG would circulate these options for all delegates' views.

14. Other Business

MG reported that the Commission Presidents' meeting had suggested that all ASCs and Technical Commissions should have two meetings each year. It was agreed that this was not necessary or practical for EnvC.

The Chairman declared the meeting closed at 17:25.

Documents to be attached to Minutes:

Appendix 1 Norway Report

Appendix 2 UK Report

Appendix 3 Germany Report

Additional documents to be circulated with Minutes:

EnvC President's Report:

EnvC President Report 17-1-09.pdf

Norway comments on FAI EMS:

IDRETT-256363-v1-NLF_FAJ_EMS_Code.pdf

Norway figures on use of alternative fuels:

Kopi av IDRETT-274127-v1-NLF_Miljø_Utslipp_til_luft.XLS

IDRETT-274526-v1-NLF_Miljø_Carbon_cost_examp.pdf

Appendix 1

**Norwegian Air Sport Federation
Norges Luftsportforbund (NLF)**

Report to FAI Environmental Commission, Annual Meeting 17 January 2009

Prepared by

**Tore Båslund
Secretary General**

1 Strategic planning in NLF

Air-sports activities have for years suffered under steadily increasing restrictions and increasing costs, thus experiencing stagnation and even decrease in activity levels.

In order to influence the on-going development in a positive direction, the board of NLF has, for the last twelve months, been running a strategic development process to identify our main challenges and initiate and follow-up on the necessary activities in this connection.

The critical strategic development areas are identified as:

- Safety
- Airspace
- Environment
- Airports and facilities

As the environment issue is considered to be one of the strategic development areas, this report presents a summary of the NLF Strategic Plan on said issue.

2 Strategic plan on environment

2.1 Background

Having been a problem related to noise and local pollution for many years, the environmental matters have suddenly become a global challenge related to carbon emission and climatic changes, on top of the agenda for most politicians as well as the public opinion.

These challenges are not reflected in the traditional way of dealing with environmental issues within the air-sports society; neither are they reflected in the commonly known Environmental Management Systems (EMS), which have to be modified to reflect such aspects.

Traditional EMS-systems appear to be rather bureaucratic and rigorous, and are probably not optimal for the air sport society, which is mainly based on voluntary resources.

The FAI Environmental Commission is preparing an EMS-system special dedicated to air-sports activities, to be presented at the FAI General Conference 2008.

Regardless of this it is important that NLF is preparing its own strategic environmental plan, reflecting our own real-life situation, and that the FAI-system approach may be integrated at a later stage.

2.2 Environmental strategy

- Verify and communicate our environmental impact.
- Actively minimize the environmental impact of air-sports.
- Improve consciousness and attitude of air-sports participants in environmental matters.
- Act constructively in environmental issues in relation to our surroundings, society as well as nature.

2.3 Implementation and follow-up

Activity 1: Information and motivation

To inform and motivate key personnel at local club-level to contribute to the necessary amount of work related to the implementation of the environmental strategy, we have to formulate and communicate a message convincing club-personnel down to the grass-root level in very specific terms why the environmental activities are important to just their situation.

Arguments may be:

- Environmental matters important for our social acceptance, on a local as well as on a central level.
- An ambition of being recognized as responsible and environment-friendly.

- A true wish for being a part of the solution, not the problem.
- An ambition of not being the accidental victim of future environmental regulations.
- Profitable over the years to come.

This message should be promoted and communicated through all available channels, including a forum where club-representatives and members will have the opportunity to bring forward their questions and doubts.

Activity 2: Verification and documentation

In order to establish a fact-basis for all processes to be run on local club-level NLF and its various air-sport sections shall initiate and verify a set of documentation of the real environmental impact from the various air-sports activities, related to:

- Lead-emission
- Carbon-emission
- Noise-emission.
- Other

Activity 3: Improvements per air-sports activity

NLF shall, centrally and on air-sports sectional level, establish relevant descriptions of potential environmental improvement activities, as well as a relevant standard for clubs and air-sport execution regarding:

- Relevant aircraft types
- Relevant engine-types.
- Relevant fuel-types.
- Potential modifications
- Operational procedures.
- Operational patterns
- Operational time-restrictions.
- Carbon quotas
- Other

In this connection a set of fact-sheets will be established to illustrate the potential economic benefits related to the utilization of more environmental-friendly fuels, engines and aircraft types.

Activity 4: Environmental improvements in clubs

NLF shall, on central and sectional levels establish standard routines and procedures for the clubs' day to day handling of:

- Spillage of oil.
- Chemical waste.

- Garbage
- Noise complaints from neighbors'
- Other

Activity 5: Information and education

A program for information, motivation and education of all involved personnel will be established, based on:

- Internet
- Internal magazines
- Courses
- Seminars
- Environmental hand-book

Activity 6: EMS-system implementation

A simplified Environmental Management System (EMS), potentially based on the FAI EMS Code for Air Sports Activities (entry level) will be developed and implemented at club/flying site level, comprising the following elements:

- Environmental challenges
- Organization and responsibilities
- Routines and procedures
- Aircraft
- Fuel
- Emissions to the air.
- Noise
- Chemical waste
- Other waste
- Sanitary conditions
- Approvals
- Reporting

The EMS/Entry-level system should be kept at a simple, check-list level, with a potential maximum of one page per item.

Verification should be limited to a yearly written statement from local key-personnel, confirming necessary actions according to relevant procedures.

Documentation and reporting should be integrated in technical and operational hand-books and manuals, not a stand-alone system.

Appendix 2

UK Report to FAI Environmental Commission 2009

FAI Environmental Code of Conduct and individual air sports

Within UK air sports there continue to be limited aspects of environmental policies. The projects or schemes reported last year are continuing, but mainly at a fairly low key level.

The **British Gliding Association** (BGA) Development team will shortly be joined by an environmental specialist who has shown interest in identifying and developing environmental projects within gliding clubs. For the first time, the BGA annual conference for gliding club officials will include a discussion session on 'greener gliding' in the hope that this will stimulate greater interest in this area.

The introduction of the BGA club accreditation scheme mentioned last year is making slow progress for reasons outside the control of the BGA. The inclusion of environmental standards in the scheme is therefore some way off.

The **British Aerobatic Association** reports that aerobatics in powered aircraft continue to suffer from environmental issues concerning noise. This may be broken into 3 areas: home aerodromes, practice sites and competition venues.

Aerodromes where aerobatic aircraft are based often attract additional noise complaints as these types are quite distinctive and can be noisier than run-of-the-mill aircraft.

Unless managed carefully, practice sites, which usually follow particular features such as railway lines or straight roads for orientation can become over-used, resulting in noise complaints. Often, this is a matter of perceived noise, it is the apparent intrusion that upsets people and they use the noise complaint as a way of expressing this.

Competition venues can often only be used once a season because of local opposition. The aerodrome hosts want the custom but not at the expense of damaging their local relationships with the negative impact on their business. Competitions invariably operate overhead a host aerodrome for safety reasons.

There are other environmental issues surrounding the use of fossil fuels but the amount of fuel actually consumed by aerobatics is considered to be tiny as a fraction of the whole. BAeA don't feel under any particular environmental pressure at the moment with regard to using AVGAS. None of their aircraft use diesel or bio-fuel, yet.

The **Light Aircraft Association**, which is concerned with light and homebuilt aircraft, reports that the major concerns relate to exhaust gases and the noise footprint. Complaints in the vicinity of aerodromes continue to be common, even for quiet aircraft, including gliders.

The **British Microlight Aircraft Association** (BMAA) will during this year launch an environment scheme covering a wide variety of topics but based on the basic environmental premise of 'Reduce, Re-use, Recycle'. Consideration is being given to the use of energy in all aspects of microlight activity and also to the possibilities of bio-diversity around airfields.

Planning and 'Brownfield' sites

As a matter of government policy, 'eco towns' are being planned in several locations around the UK. These are intended to be new towns built with environmental principles as a major part of their planning. There has been some public scepticism about the validity of some of the claims. Several of the short-listed sites for these new towns are on airfields currently being used by various forms of recreational aviation and we have therefore been lodging objections to these proposals where they affect our activities.

Wind farms

There continue to be numerous applications to develop windfarms near aerodromes, with the most significant threat to a flying operation being a proposal to site a turbine in the middle of the airfield! The Civil Aviation Authority is a statutory consultee for wind farm planning applications and they pass on information to the air sports so that we are able to register objections at an early stage in the process if this is appropriate. There is some moral pressure here as it is evident that there is a need for alternative sources of energy and therefore the air sports community should aim to be supporting these developments. We attempt where possible to work amicably with developers, to negotiate acceptable projects and also not to object to plans that realistically are not a threat to air sport activity.

European Emissions Trading Scheme

Through the work of a small team at Europe Air Sports, and their professional adviser in Brussels (Timo Schubert) in particular, the European powers have been persuaded that aircraft below 5.7mt MTOM are to be excluded from the Emissions Trading Scheme. This is a significant achievement and will mean the avoidance of a huge bureaucracy (and cost) for the light aviation community throughout Europe.

Diana King
16 January 2009

Appendix 3

DAeC report to FAI EnvC meeting 2009 – 17th of January, Neu-Isenburg

Dr. Wolfgang Scholze
Alternate Delegate Germany
Environmental Officer Deutscher Aero Club (DAeC)
Technical Officer Environment Europe Air Sports

1) Sport-Audit Luftsport (air sports audit scheme)

[Sport-Audit Luftsport is a four layers step-by-step approach, starting with a very easy understandable and cheap entry step into an environmental and quality management system (on the basis of check-lists, questionnaires) and ending with full EMAS (European Eco-Management and Audit Scheme) conformity. Participating air sports clubs have the possibility not only to use the management systems tools and documentary, supporting them to solve and avoid legal environmental and safety problems, but as well to have their activities certified by an independent expert according to international standards. Sport-Audit Luftsport offers support and tools not only in environmental related topics, but other important fields as well, such as e.g. public awareness rising, members, guests and neighbourhood relationships (communication!), new member's advertisement and planning and carrying out of air sports competitions and festivals. The use of the Sport-Audit Luftsport materials is free for everybody. Costs for the optional certification process are depending on the step wished to be gained. For member clubs and associations it is, compared to other management systems, very cheap: step I costs 150,- €, step I+II 200,- €, step I, II + III 250,- €. The costs for step IV are not decided yet. Step I is valid for one year, step I+II for two years and step I, II + III for three years. The low cost approach is possible because steps I to III are audited and certified by our own air sports experts, qualified, trained and audited by independent, internationally approved experts. Information about the Sport-Audit Luftsport and documents are available via DAeC's environmental website www.daec.de/uw/.]

The environmental and quality management system within air sports in Germany "Sport-Audit Luftsport" in 2008 was once more supported financially by the Environmental Ministry of the German Bundesland Schleswig-Holstein, thus allowing us to optimize the system according to the needs of our air sports clubs. Having a three step system already, we now have elaborated a fourth step, which enables the participating club directly to enter into an EMAS validation process. Three air sports clubs (2 model aircraft clubs and a gliding club) in 2008 were successfully validated and received the EMAS certificates. In total, more than 35 air sports clubs with different air sports activities, nearly all of them located in Schleswig-Holstein, have participated Sport-Audit Luftsport so far. All of them decided to undergo the audit process at various steps. All of them were successful and received the certificates.

With this effort and having reached the planned documents set, the model project phase in Schleswig Holstein was finished end of last year. Now, we are preparing to offer Sport-Audit Luftsport to all air sports clubs in Germany and, if possible, neighbouring countries (by means of a "partner-system"-approach). An application for funding of this approach was already made towards our Federal Ministry of Environment. We hope to receive an approval soon.

The Sport-Audit Luftsport scheme was already transferred successfully to other sport disciplines (e.g. horse riding, water sports/kajaking/canoeing). Six of such sports clubs in

2008 as well successfully participated all four Sport Audit steps and received an EMAS validation. As the procedures follow international audit and management standards (EMAS, ISO), it may become a European or international sports campaign. And it fulfils the criteria for the FAI Standard for Environmental Management for Air Sports Activities.

2) Aircraft relevant Bird Areas (ABAs) in Germany work well

Since 2007 a comprehensive set of bird areas in Germany, relevant to aircraft because of huge bird strike danger and/or possible disturbance of endangered species sensible to low over-flying aircraft, so called ABAs (Aircraft relevant Bird Areas), are published on Germany's ICAO maps (see report 2007 as well). As a consequence, numbers of critical observations and complaints about disturbances have diminished. Acceptance of the voluntary means (avoid bird strike danger and/or possible disturbance effects by minimum flight height of 2000 ft GND over ABAs) by pilots is very good, and information level within the pilots community is increasing steadily. Information about the ABAs is available via DAeC's environmental website www.daec.de/uw. Thus, there is no need to install restricted or forbidden flight areas within Germany due to nature conservation.

3) Nature conservation and environmental protection in relation to aircraft: education and examination material

In connection with the ABAs-project the German Federal Environmental Ministry has funded a project to elaborate comprehensive and modern styled education materials on nature conservation and environmental protection related to all disciplines of aircraft/air sports (see my report 2007 as well). This project needed more time than originally planned, but, end of 2008 all documents were ready for final approval. The education material will be presented in April of this year at the AERO 2009 in Friedrichshafen. It will be ready then for download to every interested pilot from DAeC's environmental website (www.daec.de/uw). As a next step, the main environmental topics shall be incorporated into education and examination throughout all types of German pilot licenses.