



# Latest From Brussels

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## Editorial



The mid-point of the year normally marks a slowing-down of the regulatory metabolism, as the decision-makers (and those affected by their decisions) turn their thoughts elsewhere. The German Presidency of the EU Council has given way to the Portuguese, and we can anticipate that emissions trading and airport issues will be high on their aviation agenda.

There will be significant regulatory activity after the summer break in the other important dossiers. On security, we await the outcome of the Conciliation process over the revision to Regulation 2320 establishing common rules, in which the Parliament and the Council are at odds over the issue of national participation in the financing of additional

security measures.

Parliament's position has of course long been supported by the airlines, who argue that terrorist threats against aircraft and airports are attacks on States and on society at large. However, the proposed regulation contains much-needed enhancements in terms of rationalisation and harmonisation, holding out the prospect of significant cost savings and reductions in the 'hassle factor'. To lose the legislation because of institutional wrangles would be a classic case of 'throwing the baby out with the bathwater'.

Although the airlines agree with the EU institutions that a sensible resolution must be found, it does not appear appropriate to seek taxpayers' funding of nonsensical security measures; it is to be hoped that this round of institutional consensus-seeking will promote an EU-wide security policy to the benefit of the airlines, their passengers, and society at large, and then jointly address the question of funding.

**Ulrich Schulte-Strathaus, Secretary General**

## ETS - measuring the impact of the Commission proposal

A major development in the debate surrounding the inclusion of aviation in the European Emissions Trading Scheme (ETS) was unveiled on 6th June, when an independent study on the impact of the EU's proposals was presented to the press and Parliamentarians at an event in Brussels.

The study, undertaken jointly by Ernst & Young and York Aviation, was commissioned by a stakeholder partnership including AEA, the European Business Aviation Association, the European Cargo Alliance, the European Low Fares Airline Association, the European Regions Airline Association and the International Air Carrier Association. The study was also financially supported by Airbus, Eurocopter and Safran.

The stakeholders' desire for a 'second opinion' was the result of a perfunctory and unsatisfactory assessment carried out by the Commission, the essence of which was that

airlines would simply pass the costs on to their customers who, being relatively insensitive to price, would accept any increases and continue to fly.

The Impact Assessment presented on 6th June paints a very different picture. It contradicts the Commission view that costs can be passed on to customers, either largely or in full. Outcomes will vary according to the operator's business model and exposure to competition, but it calculates that barely one-third of the cost of the proposed scheme could be recoverable from passengers and shippers.

Contrary to the Commission's estimation, demand for air travel is found to be highly price-sensitive; consequently any price increase will result in a loss of passengers for European airlines. To retain their business, carriers will have to absorb the cost increases, almost in full.



One of the most damaging aspects of the Commission's proposal is the selection of a cap based on 2004-2006 emission levels. By 2011, natural market growth would have increased this figure substantially, forcing airlines to purchase a significant proportion of their permits, from the outset of the programme. This is a penalty which has not applied to other sectors in the current EU ETS.

The Impact Assessment calculates, with a most likely scenario as regards the price of permits, that the cumulative cost to the industry over the period 2011-2022 would be €45.3 billion – in other words, a burden of €4bn per year on an industry which has struggled to reach an annual operating profit of €2.5bn.

The issue is currently under consideration by the relevant Parliamentary Committees – notably TRAN, ENVI and ITRE – and the

stakeholders have been pressing for amendments to be introduced into what is, for now, a potentially very damaging text.

The proposed Directive will be voted on in the various Committees in September-October, followed by a first reading by the Council of Environment Ministers expected in October, and a Parliament vote on the first reading in November.

The air transport industry as represented by the sponsors of the Impact Assessment continue to believe that a well-designed ETS for aviation can be an effective tool for managing emissions as part of a broader policy to contain emissions, incorporating technological, operational and infrastructure advances. As the Impact Assessment shows, a badly-designed ETS could have catastrophic consequences for the finances of the industry.

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## High-Level Group calls for reform of Europe's skies

The Conference on the future of Aviation Regulation in Europe, held in Brussels in September 2006, was jointly hosted by the European Commission and the Industry Consultation Body (ICB) to address the need of harmonization of the European aviation regulatory structures in the context of globalisation, increase of air traffic demand, and the Single European Sky. As a consequence of this conference, Commissioner Jacques Barrot established the High Level Group (HLG) to advise the Commission on a roadmap for the development of the aviation regulatory framework, focusing on the next steps for the Single European Sky. The proposal for the second package of the Single European Sky is expected for 2008.

In 2004 the European Parliament voted to approve the set of four regulations that comprised the Single Sky package, recasting the guidelines for the trans-European network, which was triggered by the airline community's long standing request for a more efficient system in terms of performance and costs.

At that time, a High Level Group was convened on the "extension of the major trans-European transport axes to the neighbouring countries and regions" to assist the Commission with the preparation, by the end of 2003, of a proposal for a deep revision of the trans-European transport network.

The first HLG included representatives from the Member States and the candidate countries, in order to involve the States from the outset of this extensive exercise. The task of this group was to recommend a list of priority projects to the Commission, who, from this starting point, would issue a proposal for the revision of the guidelines of the trans-European transport network and procedure for subsequent updating of the list.

In its report, published on November 2005, the HLG recognized the problems posed by traffic growth, fragmentation and constraints on the airspace and the potential benefits of



the SES initiative. It proposed the development of an efficient air traffic management system, ensuring interoperability with that implemented over the EU, and recommended to progressively expand the principles of the Single European Sky – where appropriate and justified by traffic demand – to neighbouring regions, along with the EU enlargement.

A year after the publication of the report of the first HLG, many questions remained open. The European Commission is now looking to clarify the roles of the European Aviation Safety Agency (EASA) and Eurocontrol, as well as enforce the main pillars of the Single European Sky concept: the Single European Sky ATM Research (SESAR) which will set the technical goals and the roadmap for the future (long term) European ATM System, and the further institutional reforms, including Functional Airspace Blocks (FABs), needed to ensure a more performant ATM system in the short and medium term.

Those were the reasons for Commissioner Barrot again to set up such a High Level Group. This new HLG was tasked to provide input to the Commission in support of the development of a second package to the Single European Sky Legislation (planned for 2008) as well as the mid-term review of the Single European Sky.

The initial remit of the HLG was to address the main outcomes of the Brussels Conference: Simplification of the Regulatory Framework, Enforcement of the Community Method, Empowerment/ Involvement of the Stakeholder, Future Role of Eurocontrol, Industrial Dimension of ATM (SESAR JU), and Extension of EASA scope.

The high level group was composed of representatives from the aviation community, Civil Aviation Authorities from different European Countries including EU member states, non-EU and ECAC member states, European aviation agencies, Eurocontrol and EASA. Industry representatives were also appointed to defend the industry's vision on the definition of the Future of the European ATM System. The industry stakeholders include

Airspace Users (through IATA), Air Navigation Service Providers (through CANSO), and the Industry Consultation Body (ICB), an entity created by the Commission to provide advice on technical aspects of SES related to the implementation of the future ATM system and the required policies to support it.

Following the AEA Presidents Committee meeting, which the High Level Group Chairman, Mrs Tammemons-Bakker (Dutch DGCA) and Mr Aguado (Director General of Eurocontrol) attended as guests, the AEA Chairman submitted the AEA ATM Strategy to both the HLG and Commissioner Barrot with the objective of providing the ATM customers' point of view. Airspace Users have long been waiting for this revision of the European aviation Framework, and strongly support this initiative by Commissioner Barrot.

The High Level Group presented the final report on July 6, 2007. AEA welcomed this report as an important catalyst in the Single Sky process, which had lost momentum in the face of political inertia on the part of some Member States.

In the final report, the High Level Group makes ten proposals to rebalance the governance and improve the performance of the current system, taking 2014 as the target by which the proposals must be implemented, and 2020 for completing the major changes already initiated in Europe (SES, SESAR, FABs). The 2014 target asks for the urgent tackling of some critical bottlenecks in the European system.

From the airlines' point of view, the key changes to the European ATM framework should be the following:

In the short term the Single Sky should be achieved through the implementation of few Functional Airspace Blocks (FABS) developed according to operational needs and operated by a reduced number of monopoly service providers. Ancillary services such as meteorological services should be liberalized, allowing the end user to choose its service provider.



A strong, independent mandatory economic regulation should be enforced to oversee the cost efficiency of the services provision. Industry should be given an appropriate role in the governance of service provision functions within a harmonised regulatory framework, as proposed by the High Level Group. In the context of these regulatory changes, the role of Eurocontrol has to be adapted: there is a clear need of separation between service provision and regulatory tasks. This organisation is a repository of great expertise, which must be preserved, but it is also an organisation with high costs and no incentives to reduce them. There is consequently a need for greater cost efficiency at Eurocontrol, through agreeing on a separate cost reduction target which cannot be linked to air traffic growth. Wherever possible, Eurocontrol service provision tasks should be organised according to market principles, in competition with other services providers and with the same requirements for cost reduction and cost efficiency. Key for the airlines is to ensure that the future role of Eurocontrol is first decided through the EU framework before bringing it within the Eurocontrol Governing Bodies which might not all subscribe to the need for Eurocontrol to adapt to the new framework.

The European Aviation Safety Agency (EASA) should become the single safety regulator for all aspects of the aviation value chain including ATM. The public Commission funding to EASA's budget needs to be increased so that EASA can take those additional tasks on board.

The in-depth technical revolution from SESAR should be successfully delivered, bearing in mind that the Airspace Users cannot wait until 2020 to realise the full benefits of the Single European Sky. There will be a need for public funding to finance this great project, as the transition costs will be very high and the airlines cannot afford to invest in a future system that will not deliver any benefits until 2020.

The outcome of the HLG report aims to be a clear framework for the Commission, outlining the steps to be taken in order to change the governance of the European ATM system. AEA believes that the High Level Group report facilitates Vice-President Barrot's objective to ensure Europe's competitiveness and shall become a cornerstone for the development of the second package of the Single European Sky Regulation.

## First meeting of the EU-US Agreement Joint Committee



Article 18 of the EU-US Agreement signed on March 2nd – widely known as 'the first stage' of the establishment of an Open Aviation Area between the two sides of the Atlantic – establishes the modalities of the implementation of a Joint Committee. This Committee, represented by both the US Department of State and the European Commission, met from 20 to 22 June to, amongst other things, discuss its own Rules of Procedure. It is now planned that the Joint Committee will meet at least once a year to discuss the implementation of the clauses of the first stage – in particular security, safety, environment, infrastructure and consumer protection.

Working groups are expressly planned for issues that require a specific level of expertise. It has already been agreed that such groups would be created, for instance, around the topic of citizenship determination.

Although the Rules of Procedure will formally only come into force at the date of the provisional application of the Agreement (i.e. 30 March 2008), a second preliminary Joint Committee meeting will be held in Brussels during the week of 5 November 2007. It will focus on preparing for the deadline of the provisional application, and assessing to what degree the gradual elimination of 'residual elements' (i.e. the elements in both Parties that need to be amended in order to be compliant with the clauses of the Agreement) can be accommodated within the established schedule.

The questions related to the second stage, to start officially after May 2008 according to Article 21 of the Agreement, will be left out of the scope of the Joint Committee, which will instead concentrate its effort on the timely and effective application of the first stage.





AEA is part of the delegation as an observer, and has been actively participating in the debate by providing briefs to the Commission on the various issues its member airlines are faced with when flying to the US. Amongst others, the charges at both Newark and Los

Angeles airports have been mentioned as one of the major concerns. The frequently conflicting security measures on both sides have also been indicated as already causing major disruptions and being the cause for worryingly increasing costs.

## Interview: Boeing Research & Technology Europe Improving the environmental performance of aircraft: Boeing's research into fuel cell technology



Dr. Nieves Lapeña, Environmental Technologies Technical Team Leader (Boeing Research and Technology Europe).

**Could you explain briefly what a fuel cell is and why this source of energy is cleaner**

**than others?**

Unlike internal combustion engines, fuel cells are electrochemical devices that convert the chemical energy of a fuel directly into electricity and heat without combustion or mechanical energy. They can therefore be made more than twice as efficient as internal combustion engines, helping us to save fuel. Furthermore, they only produce water as a byproduct instead of hydrocarbon emissions. One other advantage that fuel cells offer is that they are quieter than other types of engines because they have less moving parts.

**Fuel cells have been applied mainly to ground transport. Could you explain why fuel cells could also be suitable for air transport applications?**

Although the most recent applications of this technology lie in stationary power generation and ground transport applications, fuel cells were first used in the aerospace sector many years ago by NASA. As of today, Boeing sees in fuel cells an environmentally preferred technology that could be applied to aerospace products. We also see a potential use in auxiliary power units of large airplanes.

**It appears that for ground vehicles the technology is ready for mass production. Is the technology mature for air transport or would you say more research is needed at this stage?**

We are at very early stages for aeronautical applications. Boeing is basically studying possible aeronautical applications of two types of fuel cell technology: 1) Proton Exchange Membrane (PEM) fuel cell technology and 2) Solid Oxide Fuel Cell (SOFC) technology.

PEM fuel cell technology is the one we are studying with the fuel cell aircraft demonstrator aircraft. SOFC fuel cell technology is being evaluated for secondary power-generating systems, such as auxiliary power units (APUs), in which the fuel cell would substitute the conventional generators.

Given the rate of progress in reducing the fuel cell's weight and volume, as well as the projected capability to use common fuels, it is anticipated that fuel cells could reach a high enough maturity level within the next 10-15 years to be considered for APUs applications in a commercial airplane. The fuel cells will still be heavier than current turbine-powered APUs, but the cruise fuel savings and weight savings from potentially capturing water will help offset this weight penalty. When the technology is ready, we want to know exactly how to use it.

**What are the main technological hurdles to consider in the future?**

There are still various technical barriers towards the integration of fuel cell power systems into aerospace applications. The requirements for aerospace applications go one step further in terms of specific power density needs because the airplane has to lift off the ground. One of the most important challenges for the fuel cell demonstrator project was adopting a system designed for stationary or automotive use into the weight and volume available in a small aircraft.

**When did the BR&TE fuel cell research programme start, and which were the main goals pursued?**

The project was launched in 2003. We hope to be able to demonstrate for the first time in



aviation history that a manned airplane can maintain a straight level flight with fuel cells as the only power source. Our work on this project, which is in line with the overall mission and strategy of Boeing's Phantom Works advanced R&D unit, is to further develop this technology for possible future application on Boeing products. We are excited about the potential value of fuel cell technology for our products and for the environment.

### **What have been the major milestones of the programme in this period of 4 years?**

The project started defining the flight mission and drawing the power requirements for the different flight stages. Once the power sources were sized we carried out a preliminary design of all different subsystems and their overall lay out in the airplane to maintain the weight and balance. One of the most important milestones was the completion of the mechanical on-board integration and the wiring of all of the different systems. The completion of the test campaign to determine the system's acceptance remains a critical milestone. Once this is successfully completed, the airplane will pass on to ground and flight tests.

### **What are the expected outcomes of your research programme?**

We will consider the project to be successful when the airplane flies safely for less than an hour at approximately 100 kilometers (62 miles per hour), using fuel cell-provided power.

### **How is this research line going to be continued within Boeing? Is Boeing investing in this kind of research in other parts of the world?**

We will continue to study this technology and develop this line of research. As mentioned above, we also pursue a different line of research with SOFC fuel cell technology for potential application in commercial aircraft auxiliary power units.

### **Would you say Europe is lagging behind other parts of the world in terms of fuel cell research, development and innovation?**

We believe that with the right amount of investment Europe has the capability of being perfectly competitive with other parts of the world in the development of this technology.

### **In the Paris Air Show, Scott Carson (CEO of Boeing Commercial Airplanes) announced that Boeing was already in talks with airlines to develop a more fuel-efficient plane. How does this link with the Fuel Cell Airplane Research?**

The environment is an important issue for all of us. For decades, Boeing has been improving the efficiency and environmental performance of its products. Today our airplanes are as fuel and CO2 efficient as the average train and more efficient than the average car. The best contribution we can make is to continue to invest aggressively to improve the environmental performance of our products throughout their life cycle. Our approach to the environmental challenge we all face is multi-dimensional. It includes programs to continuously improve airplane fuel-efficiency and lower airplane emissions (CO2 and NOx included) and noise, develop aircraft for fuel-efficient, point-to-point, long-distance travel, develop alternatives to carbon-based fuels (e.g., bio fuels, fuel cell technologies), develop more efficient operational concepts for air traffic management, and airport ground operations, recycle scrap material in manufacturing processes, as well as old, out-of-service airplanes and reduce and safely contain toxic waste, etc.

### **Do you think the research in environment related technologies will be the key for the future of the aerospace manufacturer industry?**

We are firmly convinced of that. While significant progress has been made, and air travel today accounts for just 2% of global carbon emissions, travel is growing and we fully recognize the need for continued action in this area.





## PNR: the latest developments

A Passenger Name Record (PNR) is a record stored in the database of an airline's computer reservation system (CRS) or in a global distribution system, such as Amadeus or Saber. A PNR contains the travel information for a passenger or a group of passengers travelling together.

Before a booking can be completed, the PNR needs to contain a minimum set of data such as a PNR record locator, the travel agency or airline office identification, the date of the reservation, the name of the passenger(s) and the travel itinerary for this specific passenger.

However, some more data may be included to respond to customers requests, such as ticketing information, fare details, the form of payment used, contact details or any specific service information relevant to the travel.

In the aftermath of the 9/11 attacks, the US government decided that PNRs were valuable tools for security reasons in general and for investigating and thwarting terrorist attacks in particular. Accordingly, the US Department of Homeland Security (DHS) Bureau of Customs and Border Protection (CBP) was given by law the role of collecting, transferring and storing PNRs.

In May 2004, the European Commission and the US government negotiated and agreed on the US-EU PNR agreement, giving CBP the right to access up to 34 different pieces of information provided they are present in the PNR. The European Commission was satisfied that the level of protection afforded by the US to such PNR transfers would meet EU data protection standards – as long as the data was transferred and used solely for the purposes for which it was collected, i.e. "preventing and combating terrorism and related crimes and other serious crimes that are transnational in nature, including organised crime".

However, the agreement was invalidated by

the European Court of Justice on 30th May 2006 for purely legal reasons following an appeal by the European Parliament. It was then replaced by a temporary agreement in October 2006 which would expire on 31st July of this year. The agreement allowed European carriers to continue granting the US access to the passenger data in their reservation systems while complying with EU law. This temporary solution was necessary to accommodate the security concerns of the US government while avoiding a legal vacuum for EU carriers.

AEA member airlines place great importance on the interests of their passengers, whom they believe should not be subject to controls which are more burdensome or intrusive than are absolutely necessary. Therefore, they were anxious that an agreement was concluded between the EU and the US before the temporary scheme expired, to avoid being faced with possible legal actions in the EU and with fines and denied landing rights in the US.

The EU and the US reached a new draft agreement on the 28th June. AEA describes this as a very welcome development as it apparently adds no additional constraints on airlines and passengers. The most important features of the draft are that PNR data will be held for 7 years, doubling the current 3.5 years and in addition can be accessed for a further 8 years in response to a identifiable case, threat or risk. Also, the data fields will be reduced from 34 to 19 although it seems that the information required remains almost the same.

AEA is seeking to be consulted on the feasibility, as well as on the entirety of the technical, operational and financial consequences of the latest draft agreement. Furthermore, AEA remains ready to work in close cooperation within the EU-presidency, the European Commission and the national data protection agencies (DPAs) to ensure proper and efficient implementation of the agreement.

## Important Events (August / September)

- |           |   |
|-----------|---|
| 27 Aug    | EP resumes after summer recess  |
| 27 Aug    | EP TRAN meeting   |
| 30 Aug    | ECAC/EU dialogue – steering committee   |
| 12 Sep    | IEC Standing Committee  |
| 12 Sep    | Aviation Week's Green Aviation Forum - Aviation and the Environment                         |
| 12-13 Sep | IQPC MRO Conference in Hamburg - MRO key future trends: Where do market players want to go? |
| 13 Sep    | PPC 03/07   |
| 18 Sep    | EP public hearing on airport charges chaired by Ulrich Stockmann                            |
| 20 Sep    | PC 03/07  |



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