

Position Paper

10 April 2007

**Air Traffic Management (ATM):
The AEA Vision of the Single European Sky (SES)
(Adopted by the AEA Presidents Committee on 29th March 2007)**

Introduction:

The European air traffic management (ATM) system has suffered from fragmentation for decades and its inefficiencies are well-known and documented. The cost to the airlines of €9.5bn per year for European ATM could be approximately €3.3 bn per year lower if the system were operated more efficiently. CO₂ emissions per flight could also be significantly lowered. If global operational requirements and market demand were decisive for the organization of ATM, safety would be enhanced and costs and the impact on the environment would reduce significantly.

Furthermore, the current ATM system will be unable to cope with the traffic demands forecast for the period between now and 2025.

The AEA notes that since the adoption of the Single European Sky (SES) legislation package in 2004, some progress has indeed been made. Substantial challenges, however, remain. To overcome these challenges major operational improvements are required along with political action for the regulatory and institutional reform of European ATM. Effective political action must be taken now, by the EU Member States, to implement a real single European sky.

This paper aims to provide a vision of the Single European Sky and Air Traffic Management in Europe, set out the necessary steps to achieve it and indicate the political priorities that need to be set.

- Adria Airways
- Aer Lingus
- Air France
- Air Malta
- Air One
- Alitalia
- Austrian
- bmi
- British Airways
- Brussels Airlines
- Cargolux
- Croatia Airlines
- CSA
- Cyprus Airways
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Olympic Airlines
- SAS
- Spanair
- SWISS
- TAP Portugal
- TAROM
- Turkish Airlines
- Virgin Atlantic Airways

- Adria Airways
- Aer Lingus
- Air France
- Air Malta
- Air One
- Alitalia
- Austrian
- bmi
- British Airways
- Brussels Airlines
- Cargolux
- Croatia Airlines
- CSA
- Cyprus Airways
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Olympic Airlines
- SAS
- Spanair
- SWISS
- TAP Portugal
- TAROM
- Turkish Airlines
- Virgin Atlantic Airways

Summary:

The AEA's vision of a true single European sky, consists of a few Functional Airspace Blocks (FABs) developed on the basis of operational needs, with continuous political commitment for the key objectives: safety, flight efficiency, cost efficiency and capacity. Improved flight efficiency will de-facto reduce the environmental impact of ATM. Should the current initiatives, launched by various European air navigation services providers (ANSPs), not achieve satisfactory and fast results, the European Commission must be given a mandate to lead the FAB development within a short timeframe.

Changing the governance of Air Traffic Management (ATM) in Europe is essential to remove the current inefficiencies. The future governance structures should ensure maximum control by the airlines as the clients of ATM services.

ATM services should - wherever feasible – be performed in competition or after a transparent tender procedure and be funded on the basis of locally specific fees. Where competition is not possible, mandatory independent economic regulation should be put in place.

Unbundling of ancillary ATM services from the core Air Traffic Control service should be accelerated. Ancillary services (i.e. Communication, Navigation, Surveillance (CNS), Training and Meteorology Services) should be subject to full competition in order to ensure a more cost efficient service.

The number of ANSPs should be reduced and the number of Area Control Centres (ACCs) will need to be adapted strictly to operational needs. This does not necessarily mean that jobs will have to be concentrated in a few places since technological developments (e.g. remote work) and aviation growth will mitigate the effect.

Eurocontrol's role has to be rethought in the context of the Single European Sky. In particular, there is a need for clear separation between service provision and regulatory tasks.

The European Aviation Safety Agency (EASA) should become the single safety regulator for all aspects of the aviation value chain, including ATM and airports. Therefore, the role of Eurocontrol in this field has to diminish when EASA assumes responsibility.

The current system of one National Supervisory Authority (NSA) per EU country is unsustainable. For the sake of safety, interoperability and operational efficiency, the oversight of rule implementation should be carried out by a limited number of NSAs in order to guarantee a homogeneous application of the rules and a common level of services.

- Adria Airways
- Aer Lingus
- Air France
- Air Malta
- Air One
- Alitalia
- Austrian
- bmi
- British Airways
- Brussels Airlines
- Cargolux
- Croatia Airlines
- CSA
- Cyprus Airways
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Olympic Airlines
- SAS
- Spanair
- SWISS
- TAP Portugal
- TAROM
- Turkish Airlines
- Virgin Atlantic Airways

Eurocontrol could continue to deliver expertise to the EU on regulatory tasks but there is a need for greater transparency regarding its role and how it should be funded. Governmental tasks, in particular, should be funded from public funds and there should be clear yearly targets to continuously reduce Eurocontrol's budget, which is unsustainable at its current level (700 MEuro/y) when compared with the services delivered.

Until a defined structure has been put in place, Eurocontrol could continue to play a role in co-operative network design, civil/military coordination and coordination of pan-European programmes, provided they are adapted to SESAR.

Wherever possible, Eurocontrol service provision tasks (e.g. Experimental Centre, Institute of Air Navigation Services) should be in competition with other services providers, managed according to market principles and not subsidized from the general Eurocontrol budget / en-route ATM charges.

SESAR is developing the technical/operational complement to the Single European Sky. SESAR alone is not sufficient since airlines need improvements in ATM now and can not wait until 2020 to realize the full benefits of Single European Sky. In addition, the transition costs to the new more beneficial end-system are expected to be very high and might impede SESAR implementation. Therefore there will be a need for substantial EU public funding for SESAR implementation as Public-Private Partnership, rather than the currently envisaged funding for R&D only which only benefits the EU supply industries. **In this context, airlines should only pay for services received not for pre-financing investments and technology development.**

- Adria Airways
- Aer Lingus
- Air France
- Air Malta
- Air One
- Alitalia
- Austrian
- bmi
- British Airways
- Brussels Airlines
- Cargolux
- Croatia Airlines
- CSA
- Cyprus Airways
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Olympic Airlines
- SAS
- Spanair
- SWISS
- TAP Portugal
- TAROM
- Turkish Airlines
- Virgin Atlantic Airways

AEA Vision of the Single European Sky

Guiding principles and performance objectives

In order to establish an effective and efficient single European sky, national and European policy makers should adhere to the following Guiding Principles:

- Separation of powers between rulemaking/supervision and execution,
- Avoidance of duplication of functions and organizations,
- Single Regulation at EU level. Avoidance of over-regulation, e.g. future rules to be based on a Regulatory Impact Assessment (RIA)
- Meaningful prior consultation with airlines
- Full integration of civil and military use of airspace
- No pre-financing by airlines. Airlines to pay for services received.
- Lawmaking organizations to be financed by public funds, not by airlines
- ATM system must guarantee the competitiveness of the EU airlines in the global market

The European ATM system should become at least as cost-effective as other systems of comparable size and traffic demand, such as the one in the USA (50% more efficient!). Cost-effectiveness of regulation and supervision of ATM should also improve significantly.

Overregulation should be avoided. It is necessary to keep the objective of the future ATM system in mind when proposing new Single Sky regulations:

- Ensure capability of handling a three-fold increase in traffic movements stemming from a diversifying range of users,
- Improve the safety performance by a factor of ten,
- Halve the cost of air navigation service per average commercial flight from €800 to €400,
- Reduce the environmental damage by 10% per flight

Key areas for attention

1) Service Provision

a) Functional Airspace Blocks

A true SES should consist of a minimum number of FABs not orientated on national borders but on traffic flow requirements, capacity and cost efficiency, each managed by one authority. The same safety measures and procedures should apply to all FABs.

- Adria Airways
- Aer Lingus
- Air France
- Air Malta
- Air One
- Alitalia
- Austrian
- bmi
- British Airways
- Brussels Airlines
- Cargolux
- Croatia Airlines
- CSA
- Cyprus Airways
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Olympic Airlines
- SAS
- Spanair
- SWISS
- TAP Portugal
- TAROM
- Turkish Airlines
- Virgin Atlantic Airways

Some progress has been made, mainly on the organizational matters of SES such as the certification and designation of providers, the creation and designation of National Supervisory Authorities (NSA's) and initial discussion on the organization of FAB projects. However, all these changes have led to additional costs for service providers and therefore to the users.

FABs need to be developed based on operational needs bearing in mind: safety, airspace capacity, cost reduction objectives and environmental improvements through increased flight efficiency. Achievement of this objective requires political commitment and monitoring at the highest level. The European Commission should set and monitor performance parameters to be achieved by the various FAB initiatives.

b) Cost Effectiveness and Service Provision

There is a clear need to reduce the number of service providers in European ATM if cost efficiency objectives are to be met. The number of Area Control Centres (ACCs) in Europe will need to be adapted strictly to the operational needs, irrespective of national borders, to make a cost effective Single European Sky. It should be noted that in the USA there are only 8 ACCs compared to 66 in Europe. Institutional, labor and liability issues can and must be solved with the political will to move forward.

Thanks to technology improvements, together with a reduction of the number of service providers and ACCs, an increase in productivity of the ATM system can be expected. Technological developments (e.g. remote work) and the fact that aviation in Europe is a growth industry will mitigate much of the impact, including social factors.

Changing the governance of Air Traffic Management (ATM) in Europe is essential to remove the current inefficiencies. The future governance structures should ensure maximum control by the airlines as the clients of ATM services.

ATM services should - wherever feasible – be performed in competition or after a transparent tender procedure and funded by locally specific fees. Where no competition is possible, mandatory independent economic regulation should be put in place.

Unbundling of ancillary ATM services should be accelerated. Ancillary services should become subject to market conditions (full competition) in order to ensure a more cost efficient service. The lack of meaningful competition for ancillary services (i.e. Communication/Navigation/Surveillance (CNS), Training, Meteorology Services) is now artificially inflating costs. For example, the annual en-route MET costs total an excessive amount of around 300 mEuro.

- Adria Airways
- Aer Lingus
- Air France
- Air Malta
- Air One
- Alitalia
- Austrian
- bmi
- British Airways
- Brussels Airlines
- Cargolux
- Croatia Airlines
- CSA
- Cyprus Airways
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Olympic Airlines
- SAS
- Spanair
- SWISS
- TAP Portugal
- TAROM
- Turkish Airlines
- Virgin Atlantic Airways

Under SES regulation, ANSPs are required to have contingency plans in place for all the services they provide in the case of events which result in significant degradation or interruption of their services. At present all ANSPs duplicate their current ACCs infrastructure. ANSPs must focus on solutions which are more efficient and cost effective by first looking for fall back options within existing national infrastructure (other ACCs or military facilities) and anticipate provisions in FAB developments for such contingencies.

Single European Sky Interoperability Regulations need to ensure standardization of operating systems to ensure effectiveness and interoperability.

c) Civil/Military Coordination

Cooperation between civil and military service providers is crucial in the further development of SES and for the elimination of the most important capacity bottlenecks in core Europe.

It must be recognized that the military will continue to require airspace sufficient to meet their operational and training requirements which demand flexibility of dimensions and allocation.

Member States and the Commission must look for cooperation between civil and military by which the requirements of the civil and military needs are reconciled in a pragmatic, non-political manner. In view of the fact that non-EU States and the USA are also involved, closer coordination with NATO is essential.

The political commitment from the Ministers of Defense for improved civil/military coordination is essential to move forward on this important issue.

2) Governance & Regulation

The future governance structures should ensure maximum control by the airlines as the clients of ATM services.

a) Future role of Eurocontrol

After 40 years of activity, Eurocontrol's role has to be rethought in the context of Single European Sky and the EU common aviation market. In particular, Eurocontrol activities must be revised to allow for a clear separation between service provision and regulation.

Eurocontrol should not remain immune to market pressures to become more cost efficient. This requires a sound business-plan for the Eurocontrol Agency with clear objectives and with continuous measurement of the achievements and required resources.

- Adria Airways
- Aer Lingus
- Air France
- Air Malta
- Air One
- Alitalia
- Austrian
- bmi
- British Airways
- Brussels Airlines
- Cargolux
- Croatia Airlines
- CSA
- Cyprus Airways
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Olympic Airlines
- SAS
- Spanair
- SWISS
- TAP Portugal
- TAROM
- Turkish Airlines
- Virgin Atlantic Airways

The current level of Eurocontrol activities and budget (700 mEuro) is unsustainable when compared with the services delivered. There should be clear yearly targets to continuously reduce Eurocontrol’s budget in agreement with the key stakeholders such as the airlines, other airspace users and ANSPs. Also in the case of Eurocontrol maximum control by the airlines as the clients of ATM should be ensured.

Eurocontrol regulatory activities on ATM safety must be transferred to EASA in line with the objective that EASA should become the single European aviation safety authority. Clear milestones should be established to fulfil the objective for EASA to assume full responsibility before 2010. The Future of the JAA Initiative (FUJA), which was used to convert JAA to EASA, could be used as a model for reducing Eurocontrol ATM safety activities to be migrated into EASA.

Eurocontrol is well-placed to continue to deliver expertise to the EU, the SESAR Joint Undertaking and the Single Sky Committee in particular, but there is a need for greater transparency regarding its role and how it should be funded. Regulatory and other governmental activities must be funded from public funds, including work on mandates from the EU Single Sky Committee. Until a more definite structure has been put in place, Eurocontrol could also continue to play a role on co-operative network design, civil/military coordination and coordination of pan-European programmes, provided they are adapted to SESAR.

The Eurocontrol Central Route Charges Office (CRCO) has overheads of around 20 mEuro per year (100 personnel) which seems to be excessive for the task of just collecting funds. Another type of organization than an intergovernmental organization would be far more efficient for this task.

The Eurocontrol Institute for Air Navigation Service (Luxembourg) provides free training on Air Traffic Management (at an annual cost of around 70 mEuro per year recovered through ATM charges) in parallel with private or semi-private training providers. Airlines should not be expected to continue to finance the Eurocontrol Institute for Air Navigation Service through the general Eurocontrol budget/ ATM charges. Therefore, in the future, ATM training services will need to be organized according to market principles with customers charged directly for the service provided.

The Eurocontrol Experimental Centre (EEC) in Bretigny, France, undertakes research (at an annual cost of around 70 mEuro per year recovered in part through ATM charges) in parallel with other research centres. All future Research & Development activities will need to be concentrated through the SESAR Joint Undertaking (JU) or through any later entity in charge of further R & D coordination. Airlines should not be expected to continue to finance ATM R&D outside the SESAR Joint Undertaking; all other Eurocontrol R&D spending should cease. Therefore, the EEC will need to be autonomous from Eurocontrol and become an R&D service provider bidding for R&D contracts (including the SESAR JU) in the market place.

- Adria Airways
- Aer Lingus
- Air France
- Air Malta
- Air One
- Alitalia
- Austrian
- bmi
- British Airways
- Brussels Airlines
- Cargolux
- Croatia Airlines
- CSA
- Cyprus Airways
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Olympic Airlines
- SAS
- Spanair
- SWISS
- TAP Portugal
- TAROM
- Turkish Airlines
- Virgin Atlantic Airways

The Central Flow Management Unit (CFMU) is an operational service provider and should therefore be separated from Eurocontrol. It could ultimately become the European Collaborative Decision Making (CDM) organization in accordance with the current studies developed in the SESAR definition phase.

The Maastricht Upper Area Control (UAC) is an operational service provider and should therefore be separated from Eurocontrol; it should also be reviewed in the context of Functional Airspace Block (FAB) developments.

Eurocontrol should not assume new roles in the field of ATM security. ATM Security is only a small element of the total aviation security chain. Security, including ATM security, is a government responsibility which should be handled under the leadership of the European Commission (e.g. Stakeholders Advisory Group on Aviation Security SAGAS) with the involvement of the industry security experts and intelligence agencies.

Eurocontrol's activities in the field of airports, where added value is created, will need to be funded differently, and definitely not through ANS user charges, since they mainly provide a consultancy service benefiting individual airports. Therefore, the cost of such activities should be charged to the airports requesting the service from Eurocontrol or – if the activity is to the benefit of all European airports - from public funds.

The current Performance Review Commission (PRC) should become a separate, independent performance review body, reporting to the European Commission including the Single European Sky Committee and the Industry Consultation Body (ICB).

b) ATM Safety Regulation and Safety Oversight

The objective should be to have a European ATM Safety Regulatory regime which is both effective and efficient.

Therefore, EASA/EU should become the single safety regulator for all aspects of the aviation value chain including ATM and airport safety regulation. This would be a natural complement to the EU common aviation market which requires a single aviation safety regulator. It should also include the function of auditing National Aviation Authorities and accredited organizations conducting oversight based on the common EASA rules and all safety analysis in those fields.

In line with the basic EASA Regulation (1592/2002), such activities are to be funded from public funds through Commission subsidies but the subsidies will need to be much higher than currently envisaged. This will require a political commitment from the EU Member States and EU Parliament to transfer the required public funding to EASA.

- Adria Airways
- Aer Lingus
- Air France
- Air Malta
- Air One
- Alitalia
- Austrian
- bmi
- British Airways
- Brussels Airlines
- Cargolux
- Croatia Airlines
- CSA
- Cyprus Airways
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Olympic Airlines
- SAS
- Spanair
- SWISS
- TAP Portugal
- TAROM
- Turkish Airlines
- Virgin Atlantic Airways

ATM Safety oversight (based on the common EASA rules) should be organized in the most effective and efficient way. Therefore, the current system of one National Supervisory Authority (NSA) per EU country is unsustainable (it is inefficient and, in some cases, also unsafe due to the fact that many EU countries lack the economies of scale to have all the required skills to conduct effective oversight). In the future system, there should be a limited number of NSAs conducting oversight. The required number of NSAs and human resources will have to be defined at a European level taking into account effectiveness and efficiency. The cost of ATM safety oversight could be funded through fees and charges provided they are related to the reasonable cost of the activity and provided the oversight is organized in the most efficient manner.

From the AEA point of view, the implementation of a “Just Culture” throughout the EU and beyond is essential for improving safety. This should lower the barriers for those concerned to report occurrences. In practice, this means there is a need to ensure that front line operators or others are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but where gross negligence, wilful violations and destructive acts are not tolerated.

In several EU Member States the implementation of a “Just Culture” will require a change to national penal law. The EU should take the lead on this issue.

3) Financing new ATM Infrastructure

In order to achieve the EC’s objectives, a paradigm shift in ATM is necessary along with airport capacity increases (ref AEA action plan on airports). This paradigm shift requires a new concept of operations, new airborne and ground technology and new roles and responsibilities for all actors (i.e. ATC, flight crew and airport personnel).

The transition costs are expected to be very high and could become a blocking point to progress to the more efficient end system, in particular if no public funding is made available for implementation. To finance the transition, the following principles are to be applied:

- No pre-financing of investments and technology development. Airlines to only pay for service received.
- Any direct investment in ATM technology must be coherent with the European ATM Master Plan and subject to consultation with the airspace users according to defined business plans
- A subsidized loan program developed by the European Investment Bank (EIB) available for ANS providers
- Grants through Community vehicles such as Trans European Network –Transport (TEN-T)

- Adria Airways
- Aer Lingus
- Air France
- Air Malta
- Air One
- Alitalia
- Austrian
- bmi
- British Airways
- Brussels Airlines
- Cargolux
- Croatia Airlines
- CSA
- Cyprus Airways
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Olympic Airlines
- SAS
- Spanair
- SWISS
- TAP Portugal
- TAROM
- Turkish Airlines
- Virgin Atlantic Airways

4) SESAR

The SESAR programme has been established to ensure the technical/ operational complement to the Single European Sky. The European Commission's (EC) expectation for SESAR, expressed by EC Vice-President Jacques Barrot, is that it "will deliver a future European Air Traffic Management (ATM) System for 2020 and beyond which can, relative to today's performance,

- Enable up to a 3-fold increase in air traffic movements whilst reducing delays,
- Improve the safety performance by a factor of 10,
- Enable a 10% reduction in the effects aircraft have on the environment and
- Provide ATM services at a cost to the airspace users which is at least 50% less"

These objectives should be the driving force for the SESAR programme. SESAR is not to be used as a financing vehicle for European Supply Industries through user charges paid by the airlines.

SESAR alone is not sufficient since airlines need improvements in ATM now and can not wait until 2020 to realize the full benefits of Single European Sky. Political action is required now and should not wait until the full implementation of SESAR.

SESAR implementation should be seen as an infrastructure project for Europe. Therefore it should receive substantial EU public funding as Public-Private Partnership (rather than the currently envisaged funding for R&D only) similar to EU public funding provided to pan-European transport projects in other transport modes (rail & shipping).

SESAR will only be able to deliver if the political/institutional problems referred to in previous paragraphs are solved without further delay and if the required public funding is made available for implementation.

For more info please contact:

Vincent De Vroey
General Manager Technical & Operations
Association of European Airlines (AEA)
Tel 32.2.639.89.86
Email: vincent.de.vroey@aea.be
www.aea.be