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Single European Sky (SES) and the relation with the Global Performance Framework

Presented by IFATCA / ECA

Summary

The European Commission (EC) will propose legislation that includes an extension of the SES regulations, the SESAR ATM Master Plan and the extension of EASA competences to include ATM by June 2008. The EC is currently developing firm proposals for the second package of SES legislation (SES II).

This paper addresses from a front end user perspective the need to:

- *secure the global perspective in moving from a technology-driven¹ to an ATM performance based (and not driven) approach in Europe²;*
- *avoid further complications, IFATCA / ECA believe that on the whole the current ATM system is performing very well within the current frame (though there are bottlenecks geographically and time wise which do cause frustration to user), that as an ATM community we have to prepare to pick up the challenge of the future demands to the current system;*

IFATCA / ECA have identified a number of risks which have the potential to confuse, delay and question the future harmonised development of the ATM system;

- *write a position paper to further assist in the translation of the ICAO Operational Concept into implementation and explanation to other ATM community member and the European Politicians if necessary;*
- *secure that the European Institutions do continue to listen to the input from the front end users and address the main stumbling blocks for a sustainable development of the European aviation with the SES II as an adequate vehicle.*
 - *The overall reform is highly ambitious compared to other network (energy, water etc.).*
 - *There is a need for pragmatism and compromise in order to achieve a pan-European solution.*
 - *In order to achieve a common, agreed and shared vision for the future we would recommend to the Commission to propose a functional specification study*
 - *This however cannot be successful if carried out only in the frame of the European Union area and without any connection to the ICAO approach.*
 - *As professionals we are worried by the intention to introduce heavy-handed economic regulation.*

¹ There is a danger that the current SESAR approach is still very much technology-driven, even if SESAR talks of service focus.

1. Introduction

- 1.1. Following the regulatory conference of 22.01.08 called "Towards a more performing European Aviation system³ - Single European Sky Conference" and the soon to be published SES II regulations by the European Commission, IFATCA / ECA are convinced that further reflections and inputs need to be done to contribute to a successful ATM improvement. SES I has been as efficient as any other harmonisation in the past⁴, and the impact assessment of the Performance Review of the Commission⁵ has provided some facts and figures to address the shortfall of the European Commission's initiative (SES I).
- 1.2. IFATCA / ECA have produced an explanatory note for their Member Associations in Europe which can be of assistance in the current debate on SES II. This note is annexed to this paper.
- 1.3. The understanding of the current move to launch SES II is that four main elements will shape SES II. A performance regulatory set up, a drive for economic and environmental regulations and an establishment of a network related function.
- 1.4. IFATCA / ECA have identified with regard to the setting up of the performance framework various points of concern. They are listed – and where possible IFATCA / ECA make proposals to address them.

2. Discussion

- 2.1. We identified what currently is missing with regard to achieving a harmonized transition into a performance based ATM. IFATCA has further outlined what are the challenges for the SES II during a combined IFATCA/IFALPA presentation. A list with the major risks has been displayed in chapter 2 of the annexed document. For the following chapter only a few of these risks will be discussed and proposals aimed at assisting the European Commission to assist a sustainable development of the civil aviation system in Europe are given.
- 2.2. No commonly agreed and shared goals, neither strategy on what shall be achieved exists. IFATCA, in its Statement on the future of Global ATM, has outlined the need to work together as one of the main foundations for the improvement of the system.

As the system will be continuing to be dependent on the Human as decision maker (front end user – like pilots and air traffic controllers) – it is important that SESAR, SES II and Eurocontrol do associate the representative organization at the European level and that while setting the performance targets at national level this organization have to be associated according to the SES basic regulation Article 10.

- 2.3. The lack of an ATM system functional specification will hamper the establishment of a clear Service Delivery Management (SDM) and an efficient Collaborative Decision Making (CDM) at

² The ATM concept refers to be driven to meet the community expectations and doing it in a performance based manner.

³ http://www.managenergy.tv/me_portal/mst/home.

⁴ Ladenbauer Sigfried, Integrationsbestrebungen auf dem Gebiet der europäischen Flugsicherung. Eine intertemporale Analyse der Erfolgsfaktoren des „Single European Sky“ im Vergleich zu „EUROCONTROL“, University Zürich, May 2005.

⁵ Eurocontrol, Evaluation of the Impact of the Single European Sky Initiative on ATM Performance, Brussels, December 2006.

high level. One of the fundamental problems which has the potential to delay and confuse the current work of the Commission and limits its possibility is the lack of a clear description of the functional specifications of the ATM system. This will be very important when a future potential performance agency (observatory with regulatory competence shall be established) and a future network function will be established. As at a political level the European Commission tries to become competent in a pan-European extension this can only be achieved via the involvement of ECAC and/or ICAO European member states. Eurocontrol with its current pan-European civil military dimension can provide the right platform to become a network functional manager. This means though that the service provision part of Eurocontrol would have to be properly identified and isolated (HLG recommendations). A functional specification of the ATM system will assist to identify service provision, regulations and support to state functions and to highlight which of these elements are essential to provide for an efficient pan-European network management function.

2.4. Problem in achieving a performance based ATM framework for Europe.

- 2.4.1. Lack of competence to regulate, for a pan-European and globally interoperable framework for the European Commission. The regulatory competence of the European Commission with regard to the introduction of regulations has the potential to create regulatory fragmentation if not addressed properly and thus an increase of user costs. The global interoperability needs to be maintained and any evolution to a performance based framework needs to be addressed within the global framework.
- 2.4.2. Misunderstanding of a performance driven ATM system – need for clarification. IFATCA / ECA noted with concerns that currently only a few actors understand the spirit of the ATM Concept and do have problems therefore to understand what a performance based ATM system will look like in the future. To our understanding the majority of the actors believe that setting targets will assist to achieve a better performance. See annex 3 (IFATCA position on ATM performance).

Out of the 11 Key Performance Areas, four areas of concern have been singled out by the performance review commission⁶ in the last report, which need to be addressed urgently:

- Safety challenge
- Capacity in core Europe
- Flight/Environmental efficiency
- Cost effectiveness

It is our understanding that the European Commission will be addressing these four challenges through the introduction of a performance-based system. In IFATCA / ECA's view this is too limited and will not bring the expected benefits to the overall Aviation community as imagined by the Global Concept.

2.4.3. Need for an efficient, independent performance setting structure at the pan-European level.

Currently, Eurocontrol's Performance Review Commission is the pan-European observatory for the performance of the ATM system. However, its independence needs to be ensured and its competence enlarged with a legal text. It should include not only performance measurement but also (after discussion) the setting of the performance targets under the mandate of ICAO EUR or

⁶ Fron X., Presentation of 22.01.08, http://www.managenergy.tv/me_portal/mst/3762/index.html.

ECAC. SES II could consider this future independent performance setting structure as the ‘assessor’ of SES II and further target setting.

2.4.4. Metrics

ICAO ATMRPP is currently elaborating metrics. This work has however not yet been endorsed by the Commission and states therefore the current work from SESAR might be used. This would require some research work in the development phase of SESAR – based on earlier work carried out by the PRC and other related R&D.

3. Conclusions

- 3.1. The overall reform is highly ambitious compared to other networks (energy, water etc.). It will be the first cross-border service and effective pooling of sovereignty. The classically-applied models of liberalization of networks should not be used in the same way.
- 3.2. There is a need for pragmatism and compromise in order to achieve a pan-European solution. ECAC (ICAO- EUR) together with the European Union needs to be involved in this change process, which has to be consistent with the overall ICAO global approach.
- 3.3. In order to achieve a common, agreed and shared vision for the future we would recommend to the Commission to propose a functional specification study for the ATM system which could be used to define together with all stakeholders a strong and solid vision for the future and assist to set targets, which need to be achieved. As there is no common and shared vision of what we want to achieve and the transition to a performance based system can only start with such a vision, there is a risk that the technology-driven approach (like SESAR) will continue to prevail – where other regions of the world will adopt the ICAO Concept Approach.
- 3.4. It is encouraging to see that the European Commission is introducing performance based ATM, thus becoming one of the front-runners of transition from a technology-driven approach to a performance-based approach. This however cannot be successful if carried out only in the frame of the European Union area and without any connection to the ICAO approach. Currently available work from the ICAO institutions should facilitate the development of a globally interoperable set of performance transition criteria and potentially even metrics.
- 3.5. As professionals we are worried by the intention to introduce economic regulation, with no clear definition of what is meant. There is a danger that we will end up with heavy-handed regulation, with no proper risk assessment of the impact to the overall system its constituents.
- 3.6. As the ambitions for ATM are greater than in the other network industries, ATM is expected to provide cross-border services (FABs). There is reference to unbundling and re-bundling of CNS. This should not happen before a proper analysis of the impact of liberalized ATM cross-border services is studied.

An essential requirement in the impact assessment is that no reduction in safety is tolerated. Guarantees must be given by the Commission that the proposal to introduce Economical regulation does not lower any form of safety of the particular systems or the overall system. Further cost-effectiveness and efficiency need to be assessed beyond the 4 year revision mechanism of the commission. Experience shows that the drift into failure due to economical regulation is only becoming visible after one or two ATM cycle (7 to 14 years).

4. Recommendations

- 4.1. SSC and PC, together with the stakeholders should agree on a functional specification study for the ATM system. Eurocontrol and EC member states will then have to agree on a set of common definitions.
- 4.2. Endorse the following vision and actions in order to address the main issues of concern for the current European ATM.
- 4.3. Vision:
 - Elaborate commonly agreed, shared and accepted targets for a pan-European ATM system with a priority on the 4 areas of concern including a statement of intention with the remaining Key performance areas identified by ICAO.
 - Elaborate a commonly agreed, shared and accepted performance gaps from the current situation leading to the targets.
 - Communicate both the targets on the long term and the performance gap.
 - Study the possible ways of regulating or not (non-regulatory measures – such as cooperation programs) these performance gaps.

5. Action:

- Set up an independent performance review body.
- Approach ICAO to present the performance framework to be established as the European regional air navigation plan for the future.
- Create a performance team (grouping SSC, PC and stakeholders) expanded to include geographically the ECAC states to elaborate and present the performance plan to be achieved (to reduce the performance gap).
- Review the role of the current PRC and reinforce SES II legislation for a pan-European independent performance body.
- Make the Member States responsible for the implementation of performance plans.