



A FACTUAL REVIEW OF THE STATUS OF THE SINGLE EUROPEAN SKY IMPLEMENTATION

A EUROCONTROL
REPORT



DOCUMENT APPROVAL

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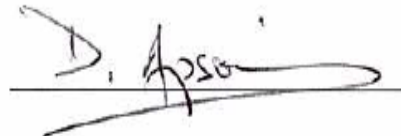
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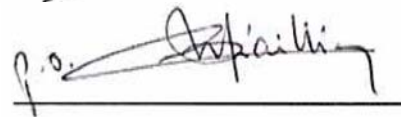
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The "raison d'être"...

Article 12

Supervision, monitoring and methods of impact assessment

1. The supervision, monitoring and methods of impact assessment shall be based on the submission of annual reports by the Member States on implementation of the actions taken pursuant to this Regulation and to the measures referred to in Article 3.

2. The Commission shall periodically review the application of this Regulation and of the measures referred to in Article 3, and shall report to the European Parliament and to the Council, on the first occasion by 20 April 2007, and every three years thereafter. For this purpose, the Commission may request from the Member States information additional to the information contained in the reports submitted by them in accordance with paragraph 1.

Regulation (EC) No 549/2004 (the framework Regulation)

EXECUTIVE SUMMARY

This report presents the results of the factual review of the status of the Single European Sky (SES) implementation as at 31 July 2006. It was produced by EUROCONTROL (the European Organisation for the Safety of Air Navigation) at the request of the European Commission (EC). Thirty States participated in the study: 25 EU Member States and 5 Associated States (Bulgaria, Iceland, Norway, Romania and Switzerland).

In addition to the 30 States, the factual review included their 32 National Supervisory Authorities (NSAs) and 50 of their most representative Air Navigation Service Providers (ANSPs). The survey was conducted by means of a questionnaire consisting of 85 questions covering 4 major areas:

1. incorporation of the SES into national legislation;
2. establishment of a regulatory framework & service provision;
3. airspace regulation;
4. interoperability regulation.

The replies, which form a formidable volume of more than 1,000 pages, have been processed and the results are presented systematically in this concise report.

The large majority of the States faced no important difficulties in adapting their national legislation to the SES (Regulations and Directives), including the formal establishment of the NSA(s). However, the setting-up and organisation of the NSAs has been delayed by a general lack of resources (mainly human), a difficulty faced mainly by small States, and by the lack of the specific know-how, required to set up documented procedures for the inspections and the monitoring.

The process of bringing the NSAs into operation is as yet incomplete. It is anticipated that it will probably be quite some time before the NSAs become capable of performing all the tasks required by the SES legislation.

By 31 July 2006, ANSPs in more than half of the States had already applied to be certified for all types of services. The majority of them use the services of other ANSPs.

Several States expressed the intention of establishing Functional Airspace Blocks (FABs), but coordination and/or different levels of readiness of neighbouring States are major inhibitors.

Most States are applying flexible use of airspace (FUA) provisions to organise their airspace for Air Traffic Management (ATM) civil/military co-ordination at the 3 Airspace Management (ASM) Levels without any major difficulties. Almost all States are applying airspace classification provisions to organise their upper airspace for Air Traffic Service (ATS) provision.

Interoperability proved to be a less advanced area in terms of implementation, probably because the States were facing more urgent priorities (the NSA establishment and the certification process). However, several States expressed the need to reduce interpretation risks and identify an appropriate practical methodology for compliance.

Furthermore, 3 Annexes are attached to the report:

Annex A contains recommendations made by the States in the comments section of the questionnaire;

Annex B includes a scoring assessment of the implementation status of each participating State, as derived from its answers;

Annex C describes the EUROCONTROL work and contribution as mandated by the EC and related to the SES.

Overall, the report provides the status of the SES implementation and its trends in the near future. Incremental differences and objective indications of progress may be obtained if the process is repeated in the future.

TABLE OF CONTENTS

Introduction	1
Approach.....	2
Status of the Single European Sky Implementation	3
Adaptation of national legislation.....	3
Service provision	4
Definition of organisational framework.....	4
Implementation.....	8
Difficulties related to certification and supervision	11
Airspace regulation	12
Legal framework	12
Organisational framework.....	13
Implementation.....	15
Difficulties reported by States.....	16
Interoperability regulation	17
Definition of organisational framework/implementation	17
Interoperability regulation	18
Difficulties reported by NSAs.....	18
Safety – accident, incident and occurrence reporting	19
Definition of organisational framework/implementation	19
Safety - ATCO licensing	20
Definition of organisational framework/implementation	20
Conclusions	21
Current situation	21
Future perspectives.....	23
ANNEX A - RECOMMENDATIONS MADE BY THE STATES	1
ANNEX B - ASSESSMENT OF SES IMPLEMENTATION PROGRESS	2
ANNEX C - OVERVIEW OF THE WORK PERFORMED BY EUROCONTROL	4

Introduction

Background

In the context of the preparation of the first report to the European Parliament and to the Council on the implementation of the Single European Sky (SES - Article 12.2 of the SES framework Regulation, (EC) No 549/2004), the European Commission requested EUROCONTROL to perform a factual review and report on the status of the SES implementation.

The EUROCONTROL Organisation agreed to undertake this work, which is compatible with the tasks and goals of the Organisation.

The factual review of the progress in the implementation of the Single European Sky covered 25 EU Member States and 5 associated States (Bulgaria, Iceland, Norway, Romania and Switzerland).

Objectives

The global objective of this EUROCONTROL endeavour was to perform a factual review of progress in the implementation of the SES in the geographical area of the EU and in the 5 associated States, and to publish the results. Those results are presented in this report.

More specific objectives were to:

- design the factual review process;
- carry out the review;
- analyse the results and produce the report;
- organise the review data in a database for further re-use and systematic periodic reporting.

The report summarises the results of the thorough and multiple analysis of the data obtained by the States through the review process. According to the questionnaire, the States responded in three different parts: the Government (State), their national supervisory authorities and thirdly their most representative air navigation service providers.

As such, the report represents a current picture of the implementation status as at 31 July 2006 and it can be used as a basis for the evaluation of the impact of the Single European Sky on the performance of the European ATM system¹.

Scope

The scope of the factual review was defined in cooperation with the EC in order to address the status of implementation of the requirements laid down in the following Community Regulations and Directives:

- Regulation (EC) No 549/2004 (the framework Regulation);
- Regulation (EC) No 550/2004 (the service provision Regulation);
- Regulation (EC) No 551/2004 (the airspace Regulation);
- Regulation (EC) No 552/2004 (the interoperability Regulation);
- Regulation (EC) No 2096/2005 (laying down common requirements for the provision of air navigation services);
- Regulation (EC) No 2150/2005 (laying down common rules for the flexible use of airspace);
- Regulation (EC) No 730/2006 (on airspace classification and access of flights operated under visual flight rules above flight level 195);
- Directive 94/56/EC (establishing the fundamental principles governing the investigation of civil aviation accidents and incidents);
- Directive 2003/42/EC (on occurrence reporting in civil aviation);
- Directive 2006/23/EC (on a Community air traffic controller licence);
- Regulation (EC) No 1033/2006 (laying down the requirements on procedures for flight plans in the pre-flight phase for the single European sky);
- Regulation (EC) No 1032/2006 (laying down requirements for automatic systems for the exchange of flight data for the purpose of notification, coordination and transfer of flights between air traffic control units).

The factual review was launched on 30 June 2006 and had to run in parallel with the ongoing ANSP certification. The later was deliberately left outside the scope of the review, since its final status would have been practically known at the end of 2006.

¹ This parallel project has been conducted by the EUROCONTROL Performance Review arrangements in line with established EUROCONTROL procedures.

Introduction

Approach

Methodology

The EUROCONTROL Agency, which was entrusted to carry out the work, set up a multi-disciplinary team to perform the study. Several methods of conducting the factual review were considered and evaluated. Emphasis was placed on developing a harmonised approach to enable a comparison of the status of the various States with one another using the key SES implementation areas. It was equally important to minimise the burden in terms of State effort. User-friendliness was one of the main design drives. Moreover, it was imperative that the correct data were gathered in a standardised and harmonised way that would allow quantitative assessments wherever feasible.

Another important aspect was to offer the States the possibility to provide feedback on their experiences with the implementation of the SES.

All the above reasons plus, the limited time available with respect to size of the task, not allowing for visits and/or inspections, led to the choice of a questionnaire-based review. Completing the questionnaires was the sole responsibility of the States.

Questionnaire

The questionnaire was designed in such a way as to:

- standardise the level of reporting;
- be used as a basis for future national implementation reports;
- allow the quantitative assessment of the status wherever feasible;
- provide the means for feedback on experiences, problems and lessons learnt.

To determine the requirements defined in the Single European Sky, each Regulation was analysed and the respective items and related stakeholders were listed. After consultation with the European Commission, it was decided to communicate with each State via a focal contact person or point officially appointed by the State.

The questionnaire consisted of 3 parts, each addressing:

- the State;
- the national supervisory authority(ies);
- the air navigation service provider(s).

For practical reasons, States having a large number of ANSP could use a representative sample.

Within each part of the questionnaire, the questions were grouped according to the different areas of the logical sequence of the SES implementation (e.g. setting-up and organisation of NSAs, designation of ANSPs, designation / appointment / establishment of other entities / bodies, etc.).

Report

The report was designed, structured and organised to reflect the factual review on the progress of the SES implementation and make accessible to the non-expert reader. The findings based on the answers provided by the States are anonymously presented and analysed in the main part of report. The structure of the report follows the “natural flow of activities” and their timing for the purposes of implementation i.e.:

1. The status of the activities needed to ensure compliance of national legislations with the EC regulations.
2. The status of the definition of the organisational framework and the status of implementation.
3. Finally, the experiences and lessons learnt.

The conclusions are based on the findings and their subsequent analysis.

In addition, the following information can be made available to different categories of users provided in the Annexes:

- the original questionnaire as distributed to the States;
- an assessment of the SES implementation progress available only to the EC;
- the answers to the questionnaires available only to the EC.

The report is based on the answers received from 30 States, 32 NSAs and 50 ANSPs.

A list of abbreviations is found at the end of this document.

Status of the Single European Sky Implementation

Adaptation of national legislation

SES Regulations - impact on national legislation

The majority of the States had to amend or arrange for amendments to be made to their national legislation to comply with the SES regulations (28 out of 30).

The amendments made to the various national civil aviation legislation (Civil Aviation Act, Air Code, Aviation Law) and/or to secondary legislation concerned in particular:

- establishment/nomination of the NSA(s);
- the ANSP certification/designation process;
- sanctions for infringements of the SES regulations;
- transposition of Directives;
- elimination of discrepancies with existing provisions.

One State out of 30 has been so far prevented from implementing part of the SES regulations because of essential defence and security interests (regarding FABs and FUA provisions) (See Fig. 1).



Fig. 1: Restrictions due to essential defence and security interests

Transposition of Directives

Directive 94/56/EC on accident and incident investigation

Most States (27 out of 30) have transposed into their national legislation the Directive 94/56/EC establishing the fundamental principles governing the investigation of civil aviation accidents and incidents. Two States indicated that they had not taken any action.

Directive 2003/42/EC on occurrence reporting

Most States (26 out of 30) have taken action to transpose into their national legislation Directive 2003/42/EC on occurrence reporting in civil aviation. These States have fully implemented this Directive in their national legislation.

Furthermore, the majority of the States (21 out of 30) have an agreement in place to facilitate the flow of safety information from the related ANSP(s) to the AIB. Six States have no such agreement and 3 States did not state whether they have an agreement or not.

Directive 2006/23/EC on ATCO licensing

The majority of the States (16 out of 30) have already implemented or taken action (drafting of national legislation) to implement Directive 2006/23/EC on a Community air traffic controller license.

Out of these 16 States 3 have fully implemented the directive in their national legislation. The remaining 13 States having taken actions were:

- drafting the amendments to their national legislation, and/or
- assessing the level of compliance of their existing national legislation, and/or
- undergoing a consultation process.

At the time of the review, this Directive was not part of the European Common Aviation Area Agreement or other Aviation Agreements, and was therefore not yet binding to the non-EU States.

See Fig. 2 for details on the above transposition of directives.

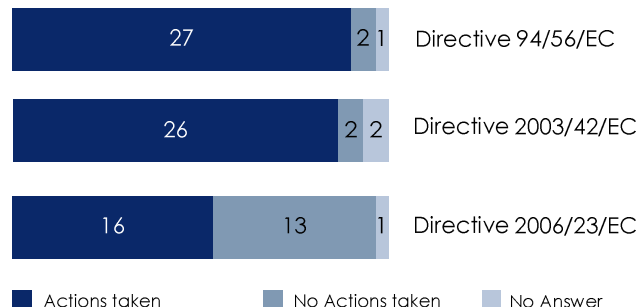


Fig. 2: Transposition of Directives

Service provision

Definition of organisational framework

Setting-up and organisation of NSAs

All of the States have established/nominated at least 1 NSA (as per Article 4.1 of Regulation (EC) 549/2004). Furthermore, 4 States have established/nominated more than 1 NSA:

- State 1: 3 NSAs - 1 responsible for the civil provision of air navigation services excluding METS; 1 for the military provision of air navigation services excluding METS; and 1 for METS for air navigation;
- State 2: 2 NSAs - 1 responsible for safety, operational aspects, certification and licensing; and 1 for policy and economic issues;
- State 3: 2 NSAs - 1 responsible for security issues and the other for all other issues;
- State 4: 2 NSAs - 1 for safety and security supervision, oversight, inspections and quality, and the other for all other issues.

A fifth State is considering the nomination of a second NSA (See Fig. 3).

Twenty-four out of 30 States reported that the legal basis establishing or nominating the NSA(s) explicitly states that all tasks and responsibilities defined in the SES Regulations as incumbent on NSA(s) are, without exception, allocated to the NSA(s) (See Fig. 4).

Staffing of NSAs

Twenty NSAs (in 17 States) provided the number of staff (in FTEs - full-time equivalent) working for the NSA. On average, 12 FTEs (varying from 0 to 55) were working for NSAs as at 31 July 2006, with the number expected to rise to 20 FTEs (between 0.25 and 71) by 31 December 2007. This corresponds to 8 additional FTEs or nearly a 70% increase in 18 months.

The NSAs of the other States (13) either did not provide any figure, often because they were unable to separately identify the specific number of staff employed in NSA services alone within the CAA (4), or because they gave the figure for the entire CAA (9) (See Fig. 5)

Budget for the NSAs

The budget for NSA activities in 13 States is expected to increase by 36% between 31 July 2006 and 31 December 2007, from a total of M 18.4 to M 25.0. On average, the budget is around M 1.4/State as at 31 July 2006 (varying from M 0.1 to M 5.0) and is expected to be around M 2.2 M /State by 31

December 2007 (varying from MEUR 0.2 to MEUR 7.3). The budget of the NSAs is financed mainly through air navigation charges, the State budget, or a combination thereon (See Fig. 6).

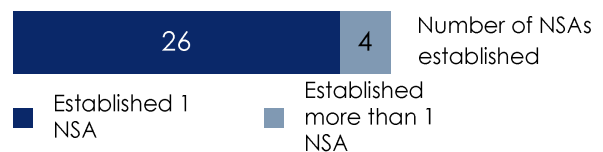


Fig. 3: Establish/nomination of NSA (as per EC 549/2004 art. 4.1)



Fig. 4: Legal basis explicitly states that all tasks and responsibilities are allocated to the NSAs

Answer to questionnaire	No of States
Relates to NSA	17
Relates to CAA as a whole	9
Not usable/no answer	4

Fig. 5: Answers to questionnaire

NSA budgets (in MEUR)	Budget 31/07/ 2006	Budget 31/ 12/07
Total budget for 13 NSAs	18.4	25.0
Variation		36%
Average per State	1.4	1.9
NSA budget ranging from	0.1 – 5.0	0.2 – 7.3

Fig. 6: NSA's budget

Service provision

Definition of organisational framework

Separation of duties

In 26 States, the separation between the NSA and the air navigation service provider(s) is said to be institutional. However, 3 of these 26 States have reported that, while the provision of ATS is institutionally separated, only a functional separation exists between the NSA and the provision of other services (in 1 State, this relates to MET, in the second to AIS, and in the third to military services). In the 4 remaining States, the separation between NSA and ANS providers is only functional (See Fig. 7 below).

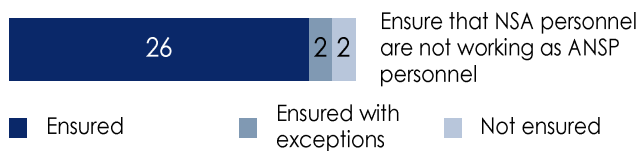


Fig. 7: Separation of duties

The States having functional separation reported that effective separation is ensured by following means:

- clear allocation of tasks and responsibilities;
- different reporting lines;
- separation between costs and revenues from the 2 activities;
- safety audit process.

Some of these means were already (or are planned to be) defined in the national legislation.

Twenty-eight out of 30 States ensured that the NSA personnel, notably the personnel involved in inspections and surveys, do not simultaneously carry out tasks as ANSP personnel on a part-time basis. However, 2 of these 28 States pointed out that there are exceptions to allow the NSA staff concerned to maintain an ATCO license. The remaining 2 States answered that the above-mentioned personnel arrangements are not in place.

Impartial and transparent exercise of powers

The framework Regulation requires NSAs to exercise their powers impartially and transparently. Out of 30 States assessed, the impartiality and transparency of NSAs is ensured as follows:

- 18 States reported that they ensure impartial and transparent exercise of NSA powers through legal and administrative instruments;
- 10 States apply legal control of administrative authorities and ensure discharge of control and supervision through authorised channels and stages of appeal;
- 6 States reported on a consultation process implemented at State level, whereas;
- 12 States ensure transparency by publication of procedures, results and motives for decisions.

One State indicated that although past practice with regard to transparency has been significantly improved, there is still room for improvement in this area and work is in progress.

26 out of the 32 NSAs have established the procedure for handling applications for certification, and 1 of the 26 NSAs has not communicated the procedure to the ANSPs (See Fig. 8 below).

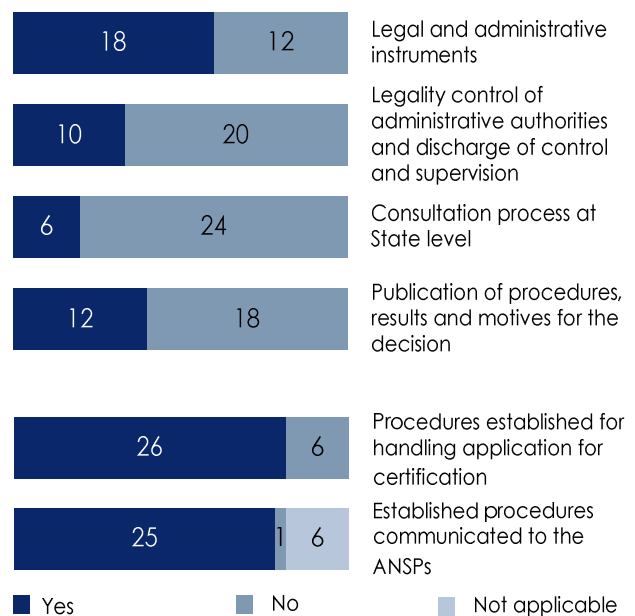


Fig. 8: Means to ensure impartial and transparent exercise of power & exercise of power by the NSA

Service provision

Definition of organisational framework

Recognised organisation

With regard to recognised organisations as defined in Article 3 of Regulation (EC) No 550/2004, of the 32 national supervisory authorities assessed:

- 2 NSAs (in 2 States) have established a documented process on how to formally recognise organisations. These NSAs have also both received applications from candidate recognised organisation(s);
- 2 NSAs (in 2 States) have granted recognition to an organisation;

6 NSAs (in 6 States) indicated their intention to delegate in full or in part the inspections and surveys to recognised organisation(s). One NSA reported delegation of inspections for METS, and another for ATS, CNS, and METS (See Fig. 9)

Framework for certification

Out of 30 States, 12 will initially allow air navigation services to handle operational air traffic (OAT) without certification. 13 States will not allow this, and the remaining 5 States have not responded.

One State will allow the military ANSP to provide services to GAT without being certified.

Two States have clearly indicated their intention to certify their ANS military providers, since the later provide services to GAT. The percentage amount of services provided to GAT was not specified

Scope of certification

Fourteen out of 32 NSAs intend to attach additional conditions to the certificate. The operational specifications of the particular services (Annex II.2.(b) of Regulation 2096/2005/EC) will be the most sensitive item planned for inclusion in the conditions of the certificates. Eleven out of 14 NSAs will include this requirement. Eight NSAs will also attach conditions related to contracts and arrangements between ANSPs and third parties (Annex II.2.(f)). Seven NSAs will include conditions related to the operating equipment used (Annex II.2.(d)), to the information required to verify compliance with the Common Requirements (Annex II.2.(g)), and to other legal conditions not specific to ANS (Annex II.2.(h)).

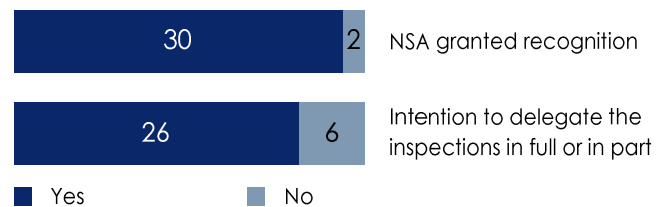


Fig. 9: Recognised organisation

Derogations

Eight NSAs have a documented policy on derogations.

Thirty-six ANSPs from 6 States have applied, and 2 military ANSPs intend to apply, for certification subject to derogation. It seems that the least sensitive item with regard to the granting of derogations for all services is financial strength.

In contrast, the most sensitive items with regard to the granting of derogation are:

- ATSPs: organisation and QMS and operational manual;
- AISP: QMS & operational manual, security and contingency plans;
- METPs: organisational, QMS & operational manuals, security, contingency plan;

CNSPs: organisation, QMS & operational manual.

Service provision

Definition of organisational framework

Framework for initial certification and ongoing supervision and monitoring

Out of 32 NSAs, documented procedures and schedules for monitoring the ANSPs have been developed by (See fig. 10):

- 25 NSAs for initial certification.
- 18 NSAs for ongoing compliance

All but one NSA have communicated these procedures to the ANSPs concerned.

Seven NSAs have an inspection programme in place for 2007.

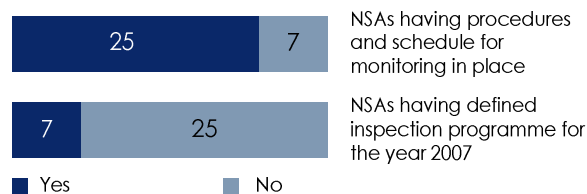


Fig. 10: Framework for supervision and monitoring

So far, the following measures have been defined to be applied to ANSPs in the event of non-compliance:

- corrective action identified and an action plan agreed by NSA and ANSP with associated deadlines;
- restriction on operation;
- revocation of certificate;
- alteration of certificate;
- set of economic sanctions (fines).

The duration of the certificates varies greatly from one NSA to another. 9 NSAs will issue a 2-year certificate, 9 will issue a 6-year certificate; others will issue certificates the duration of which will be between 2 and 6 years; and 3 NSAs will issue unlimited certificates.

Framework for designation

15 out of 30 States plan to impose rights and obligations on the designation.

6 out of these 15 States have decided on the scope of these rights and obligations. The remaining 9 States are in the development and approval phase.

However, it is too soon to have an exact description of the rights and obligations, which will be attached to designation. Some States have indicated that the obligations may relate to contingency plans, language requirements, public service obligations, or participation in search and rescue operations.

In relation to the monitoring of compliance with the conditions imposed, 2 States did not provide any details and the work on defining the process is ongoing;

As regards the authority in charge of monitoring the conditions attached to designation:

- 2 States did not provide any details and the work on defining the process is ongoing;
- 2 States did not provide any details of the authorities responsible for monitoring or any reference to any of the relevant processes or procedures;
- in 6 States, the NSA will be responsible for monitoring;
- in 1 State, the MoT will be responsible but could delegate the monitoring to the NSA.

As regards the intention to designate:

- 5 States reported that the designation is related only to the geographical scope of the service provision (1 ATSP will be designated for the entire territory of the State);
- 3 States reported that the ANSPs are designated on the basis of the previous national legislation;
- 3 States will issue a Letter of Designation to appropriately certified ATSPs;
- 8 States reported that in the Aviation Act, the right of designation is delegated to the responsible Ministry or Government;
- 1 State will initially designate the existing ANSPs once certified.

Service provision

Implementation

Status of certification of ANSPs

All 50 ANSPs, which replied, have both the principal place of operation and the registered office (if any) in their State of origin. Most ANSPs provide ATS (36), AIS and CNS (33).

The NSAs have received 88 applications total for certification from ANSPs, but applications are not evenly distributed across the continent. Half of the States received fewer than 5 applications and a similar number of States received no applications at all. Only 2 States received more than 10 applications (See Figure 11).

Out of the 88 applications received, 54 of them (61%) related to certification for a bundle of air navigation services, as provided for in Article 7.3 of Regulation (EC) 550/2004. There were slightly fewer applications for METS and these were submitted only in a few cases under an application for a bundled certificate (See Fig. 12).

Status of designation of ATS and METS

Six States have designated 6 ATS and 3 METS providers. This type of designation was based primarily on existing national legislation.

Eleven States expect to designate 39 ATS and 28 METS providers as of 24 December 2006.

The remaining 13 States have indicated that they will designate following the certification of the relevant ANSPs (See Fig. 13).

Status of supervision and monitoring

Out of 32 NSAs,

- 21 had surveys or inspections executed before 31 July 2006. 4 of them experienced difficulties, mainly for the following reasons:
 - lack of staff;
 - lack of procedures and regulations;
 - EC requirements are too high-level and leave room for interpretation by the NSAs and the ANSPs;
 - delays or difficulties in transposing/aligning the required SES processes into/with the national legal system.
- 11 NSAs had not executed any survey or inspection by 31 July 2006. Two of them specifically highlighted the lack of staff and competence in certain areas as the problems encountered (See Fig. 14).

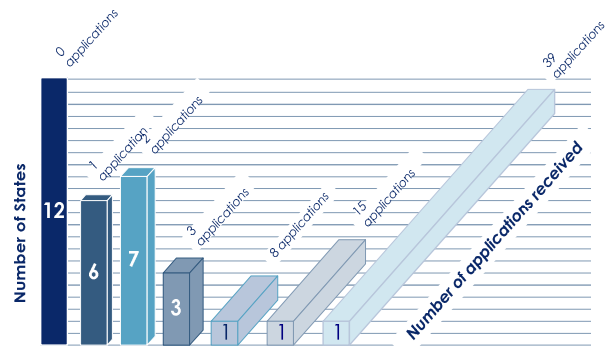


Fig. 11: Number of applications for certification received

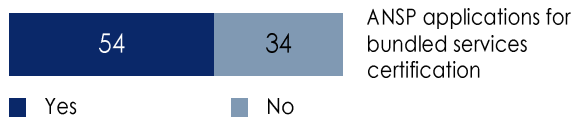


Fig. 12: ANSP applications for bundled services certification

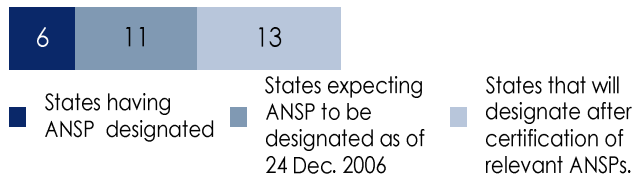


Fig. 13: Status of designation

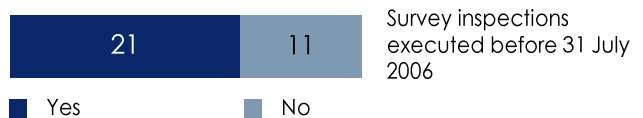


Fig. 14: Status of supervision and monitoring

Service provision

Implementation

Consultation of stakeholders

Twenty-three States have a consultation mechanism in place and 19 of them had already conducted consultations during the period from April 2004 to the end of July 2006 (See Fig. 15 and 16 for details).

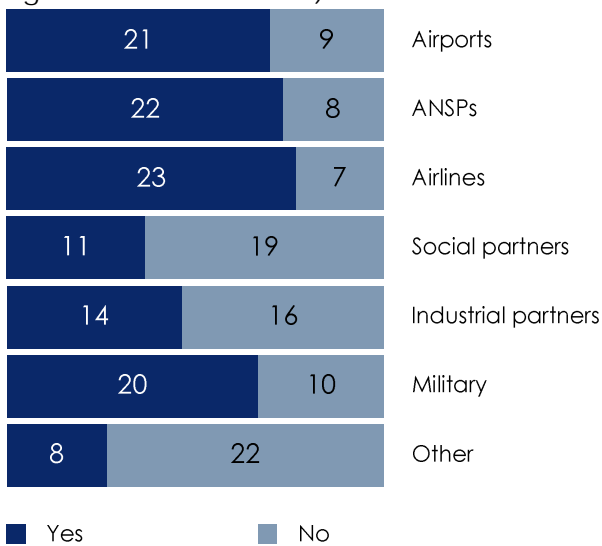


Fig. 15: Stakeholders addressed – Number of States that addressed certain stakeholders

Relationship with other ANSPs

Thirty-four out of 50 ANSPs use the services of other ANSPs. The practice is mostly used for METS services and ATS, and in 6 cases for AIS and CNS. 16 of these ANSPs provide cross-border services in another State. Half of the States concerned by the cross-border provision of services have in place appropriate arrangements on the joint supervision of these ANSPs (Articles 2.3 and 2.4 of Regulation (EC) 550/2004).

Thirty-one out of 34 of the relationships among ANSPs are formalised by written agreements or equivalent arrangements, which have been notified to the NSAs in 26 of the 31 cases (See Fig. 17).

Where ATS were used (18 cases), the States concerned have given their approval in most (12 cases) of the cases.

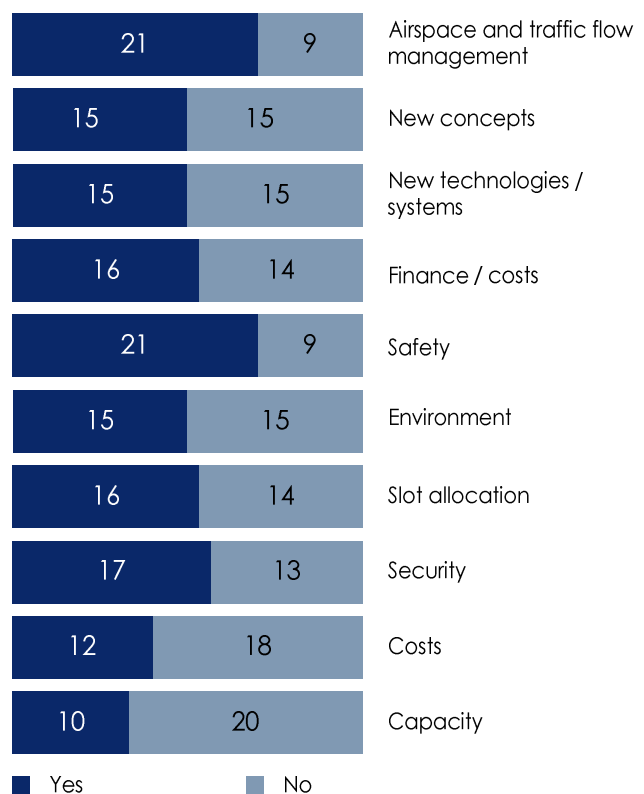


Fig. 16: Topics addressed – Number of States that addressed a certain topic

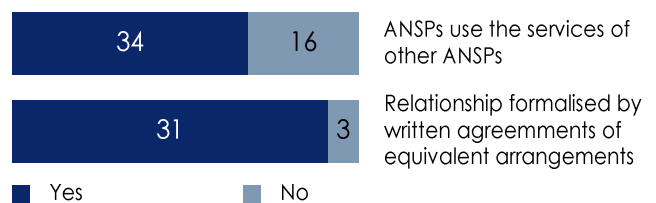


Fig. 17: Relationship with other ANSPs

Service provision

Implementation

Transparency of accounts

Thirty-six out of the 50 ANSPs provide a bundle of services (air navigation services plus other), 28 identify separately the relevant costs and income for each air navigation service, broken down in accordance with the principles of EUROCONTROL for establishing the cost-base for enroute facility charges and the calculation of unit rates.

Out of 50 ANSPs:

- 32 provide non-ANS, and 29 of these keep separate accounts for those services, as if the services in question were provided by separate undertakings, while 3 do not;
- 46 drew up their financial accounts for the previous financial year, while 3 ANSPs (2 military and 1 MET provider) did not;
- 19 out of 50 ANSPs confirmed their compliance with international accounting standards adopted by the Community;
- 35 ANSPs published an annual report for 2005; all but one included financial results;
- 38 ANSPs confirmed that they underwent at least one independent financial audit during the period from 20 April 2004 to 31 July 2006;
- 35 envisage undergoing an independent financial audit at least once a year.

In comparison with the intention of the legislation, the above-mentioned figures indicate wide discrepancies between the ANSPs in terms of ways of compliance viz. the transparency of accounts (See Fig. 18).

Access to and protection of data

Out of the total of 50 ANSPs assessed (See Fig. 19):

- 42 had implemented a process which ensures non-discriminatory access to relevant operational data for appropriate authorities, certified air navigation service providers, air-space users and airports;
- 8 ANSPs reported that no such process was established, whereas:
 - 1 ANSP reported that a procedure is being drafted;
 - 1 ANSP does not have a formal process but is sharing operational data with all parties involved without any restriction.

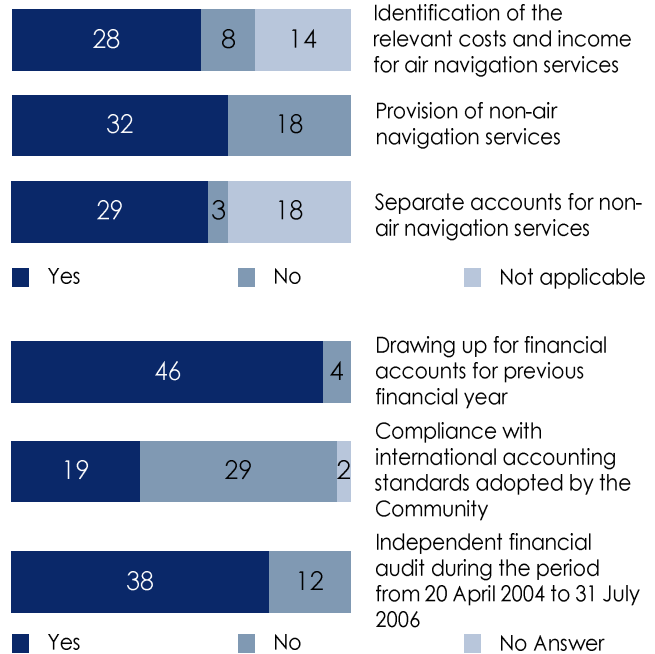


Fig. 18: Transparency of accounts:

All but one ANSP, reported that they exchange operational data in real time. 20 ANSPs reported that NSAs have already approved the standard conditions for access to relevant operational data other than the data exchanged in real time.

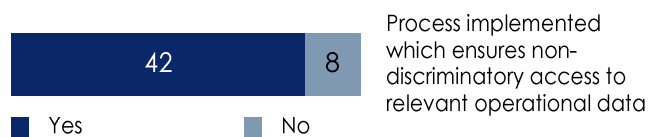


Fig. 19: Access to and protection of data

Service provision

Difficulties related to certification and supervision

Establishment/nomination of NSAs

Nine States reported that they faced difficulties in establishing their NSA(s). These difficulties were related to:

- financial constraints (2 States),
- lack of human resources and expertise (aggravated by the higher salaries sometimes offered by ANSPs, thus attracting the best resources available in the national market) (7 States),
- legal procedures (changes to laws and regulations) (4 States), and to
- lack of proper organisational and/or institutional structures.

Supervisory/oversight activities of the NSAs

Six NSAs experienced difficulties in the execution of surveys or inspections carried out on their behalf, mainly for the following reasons:

- lack of staff and competence in certain areas;
- lack of procedures and regulations;
- high-level EC requirements leaving room for interpretation by the NSAs and the ANSPs;
- delays or difficulties in transposing and aligning the required SES processes into and with the national legal system;
- delays in establishing the new culture needed i.e. independent surveillance is a new function within a recently functionally separated organisation.

Airspace regulation

Legal framework

Adoption of the Regulation, related agreements with neighbouring/adjacent States

With regard to cooperation in airspace management, out of 30 States (See Fig. 20):

- 18 States have signed or intend to sign an agreement for cooperation in airspace management with neighbouring or adjacent State(s) within the next two years;
- 9 States have been prevented so far, from doing so by legal and technical reasons, or claimed they found no operational need to do so;
- 3 States did not state whether or not they intended to do so.

The 18 States engaged in cooperation with adjacent States have established related agreements to:

- coordinate their national airspace policies for joint management of cross-border activities;

and/or to:

- establish one common set of procedures and standards for separation between air traffic services units and controlling military units involved in managing specific traffic situations across their national borders.

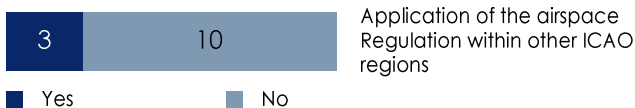


Fig. 21: Other ICAO regions

Application of the airspace Regulation within other ICAO regions

With regard to the application of the airspace Regulation within other ICAO regions, out of 30 States (See Fig. 21 above):

- the majority have no airspace responsibility in the ICAO regions other than the ICAO EUR region;
- 3 intend to apply the Regulation in the airspace of their responsibility, which is within an ICAO region other than EUR.

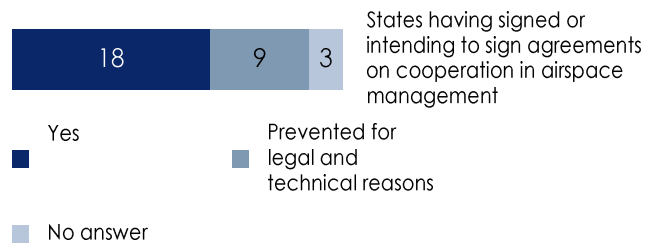


Fig. 20: Cooperation in airspace management

Legal framework for ATM civil/military coordination

With regard to civil/military coordination, out of 30 States (See Fig. 22 below):

- 22 have established legal arrangements or equivalent written agreements between the competent national civil and military authorities for the safe provision of air traffic services to civil and military aviation;
- 8 have so far not formally established a written agreement between civil and military authorities. One of these replied that the conditions for the responsibility for separation between civil and military flights are not clearly defined.



Fig. 22: Legal framework for ATM civil/military coordination

Airspace regulation

Organisational framework

Airspace organisation for ATS provision

With regard to the reconfiguration of upper airspace into cross-border Functional Airspace Blocks (FABs), out of 30 States (See Fig. 23):

- 11 intend to reconfigure their upper airspace into cross-border FABs within the next 3 years (by the end of 2009);
- 19 are either investigating the matter or do not intend to establish a cross-border FAB before 2010.

Seven States have reported difficulties regarding:

- legal issues;
- cost-efficiency;
- geographical position;
- politics;
- other “complex issues” such as military aspects, social considerations, etc.

To this end, a series of initiatives has been undertaken by a number of groups of States, indicating that out of 30 States (See Fig. 24):

- 26 intend to establish a cross-border FAB with one or more adjacent State(s), of which:
 - 11 have indicated that, for the time being, their projects do not cover the joint designation of air traffic service providers (Article 8.4 of Regulation (EC) No 550/2004);
 - 3 have already agreed on the supervision of the ANSP(s) providing services in their common FAB;
- 4 have not stated whether or not they intend to establish a cross-border FAB.

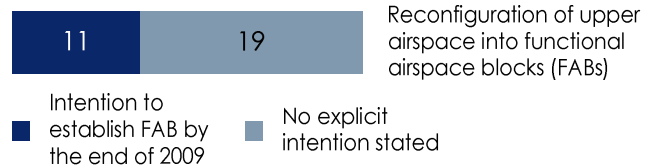


Fig. 23: Airspace organisation for ATS provision



Fig. 24: Intention to establish a cross-border FAB

Airspace regulation

Organisational framework/implementation

With regard to ATS airspace classification, out of 30 States (See Fig. 25):

- 25 have classified their airspace above FL195 as ICAO Class C;
- 4 intend to do so before July 1 2007;
- 1 did not specify whether or not it intends to do so.

Twenty States have declared that they permit VFR flights in this Class C airspace in accordance with the harmonised requirements for access of flights operating under VFR as published in the appropriate Aeronautical Information Publications, whereas in 4 other States VFR flights are not permitted in Class C airspace above FL195.

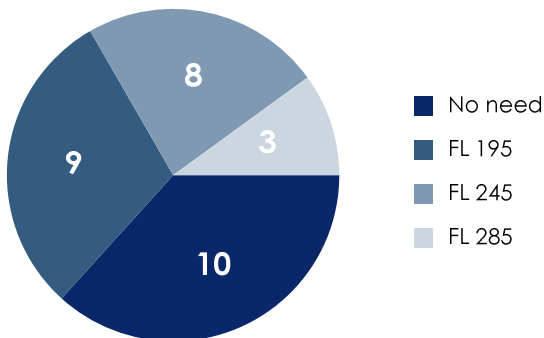


Fig. 26: Vertical division level between upper and lower airspace

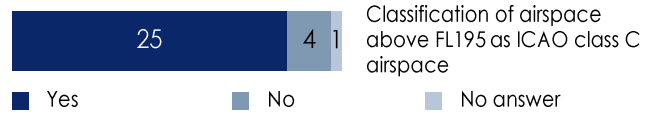


Fig. 25: ATS airspace classification

With regard to the vertical division level between the upper and lower airspace, out of 30 States (See Fig. 26):

- 3 apply flight level FL285² prescribed by the by Airspace Regulation;
- 10 do not apply any vertical division level for operational reasons;
- 17 apply a different division levels between upper and lower airspace, with:
 - 9 applying FL195;
 - 8 applying the recommended ICAO FL245.

Nine States reported they apply different vertical division levels mainly for operational reasons and the others for historical reasons, but for all of them essentially because the transition to the prescribed FL285 requires changes in system design and staff allocation, investments, and amendments in existing agreements between adjacent civil and military ATS units.³

Airspace organisation for ATM civil/military co-ordination

With regard to the strategic FUA provisions at ASM Level 1, out of 30 States:

- 25 , in which both civil and military authorities are responsible for and/or involved in airspace management, have established a joint civil/military process to perform strategic ASM Level 1 tasks. All of them have formally established a high-level Airspace Regulation/Policy Body;
- 5 States have not established a joint civil/military process to perform strategic ASM Level 1 tasks.

The figure 27 provides a detailed overview of various national airspace policy organisations and responsibilities at strategic ASM Level 1.

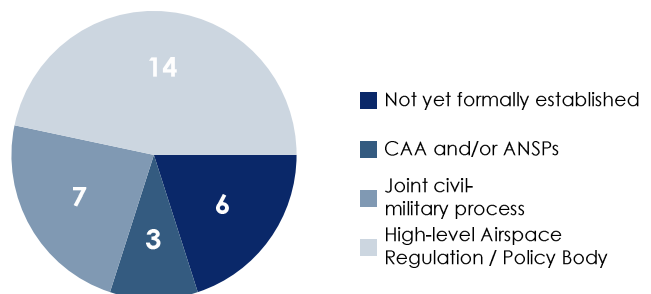


Fig. 27: Strategic FUA provision at ASM Level 1

² I.e. Upper airspace is considered the one above 28500 feet.

³ EUROCONTROL verified the figures above using the AIPs of the States.

Airspace regulation

Implementation

With regard to the pre-tactical FUA provisions at ASM Level 2 - Airspace Management Cell (AMC), out of 30 States:

- 20 have established a joint civil/military AMC;
- 5 have transferred responsibility for daily airspace allocation to the civil ANSP;
- 5 currently have no requirements for an AMC as such, of which 4 States have given their neighbouring States a list of contact points for international coordination at Level 2.

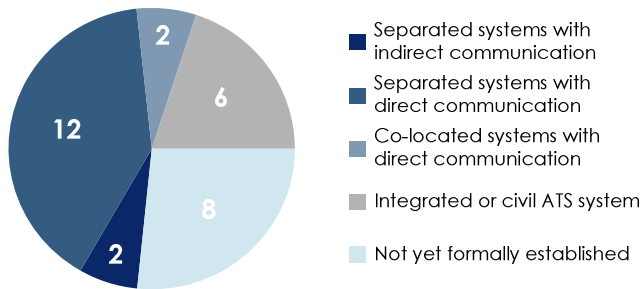


Fig. 28: Tactical FUA provisions at ASM Level 3

With regard to the tactical FUA provisions at ASM Level 3 – i.e. Real-time Civil-Military Coordination, out of 30 States:

- 24 have formally established or have already taken action towards the establishment by 13 January 2007 of civil/military coordination procedures and associated supporting systems between ATS units and controlling military units to safely manage interactions between civil and military flights. These coordination procedures are based on the exchange of flight data information (position and flight intention) to resolve specific traffic situations where civil and military controllers are providing services in the same airspace;
- 6 have not formally established or have not already taken action towards the establishment by 13 January 2007 of civil/military coordination procedures and associated supporting systems between ATS units and controlling military units to safely manage interactions between civil and military flights.

The Fig. 28 provides a more detailed overview of the various levels of national civil/military ATS organisation at tactical ASM Level 3.

Airspace regulation

Difficulties reported by States

The States were invited to make comments on difficulties they had experienced in implementing the Flexible Use of Airspace provisions. The following comments were received:

Out of 30 States, 6 have experienced difficulties in establishing the required organisation for Strategic ASM Level 1. These difficulties mainly relate to:

- legal issues in formalising and designating the High-Level Airspace Policy Body or upgrading existing ones (mentioned by 2 States);
- the need for additional in-depth discussions among interested parties (mentioned by 3 States);
- difficulty informing users and getting feedback – establishing an additional advisory board (mentioned by 1 State);
- lack of resources, mainly human (mentioned by 1 State).

Out of 30 States, 7 had difficulties in establishing the required pre-tactical ASM Level 2 organisation. Those difficulties related mainly to:

- operational issues not yet requiring a permanent joint civil/military airspace management cell (AMC) (mentioned by 2 States);
- need for additional in-depth discussions among interested parties (mentioned by 3 States);
- technical issues in ensuring interoperability between civil and military planning tools on one hand, and with CFMU on the other (mentioned by 1 State);
- need to improve military planning (mentioned by 1 State).

Interoperability regulation

Definition of organisational framework/implementation

Notified bodies

Most States do not intend yet to appoint any entity as a notified body (See Fig. 29).

Interoperability - responsibility of NSAs

Out of 32 NSAs (See Figure 30),

- 12 have defined and allocated interoperability tasks;
- 18 have not;
- 2 did not respond at all to this item.

With regard to the development of processes defining the supervision of compliance of ANSPs, out of 32 NSAs (See Fig. 30):

- 8 had developed process descriptions defining supervision compliance;
- 21 had not;
- 3 did not answer.

It is considered that no answers are negative answers. The majority of the NSAs said that they were encountering difficulties in fulfilling their role under the interoperability Regulation.

Interoperability - responsibility of ANSPs

With regard to the definition and allocation of the interoperability tasks, out of 50 ANSPs (See Fig. 31):

- 23 have not defined or allocated interoperability tasks within their organisation;
- 2 did not reply;
- 25 have defined and allocated interoperability tasks.

Concerning their reporting obligations to NSAs, out of 32 NSAs:

- only 9 have received an EC declaration of verification of the systems (Article 6 Regulation (EC) 552/2004));
- 20 have not received any EC declaration of verification of systems;
- 3 did not respond to this question.

With regard to systems which had been ordered or for which binding contracts had been signed before April 2004 and for which compliance with the essential requirements could not be guaranteed by 20 October 2005, out of 50 ANSPs:

- 43 had ordered systems after April 2004 for which compliance with the essential requirements was guaranteed by 20 October 2005.
- 3 did not answer;
- 4 had ordered systems before April 2004 for which it was not possible to guarantee compliance with the essential requirements by 20 October 2005.

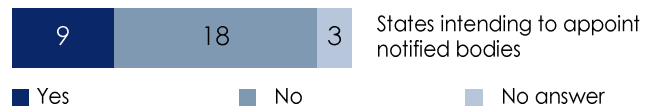


Fig. 29: Notified bodies

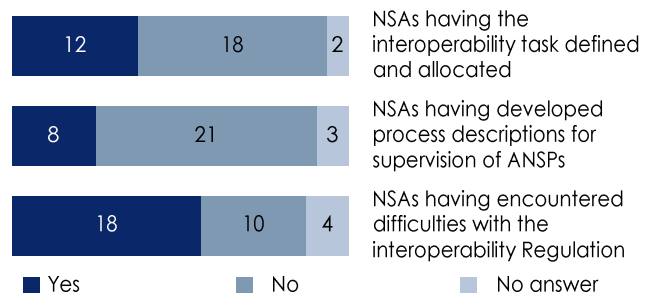


Fig. 30: Interoperability - responsibility of NSAs

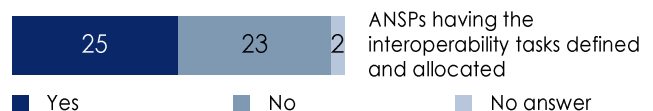


Fig. 31: Interoperability - responsibility of ANSPs

Interoperability regulation

Difficulties reported by NSAs

Lessons learnt

In relation to interoperability, NSAs were invited to make specific comments on lessons learnt and difficulties encountered in fulfilling their role in accordance with Regulation (EC) No 552/2004.

The following difficulties were reported:

- most NSAs are experiencing a lack of human resources and expertise in the setting-up of interoperability tasks;
- NSAs reported that themselves, ANSPs and some equipment manufacturers have (to varying degrees) had difficulties in interpreting the interoperability requirements, or identifying an appropriate methodology for compliance testing with regard to essential requirements alone;
- the lack of specific, detailed implementing rules has impeded a straightforward effortless implementation and progress, while currently proposed IRs are considered over-prescriptive and inappropriately addressing safety requirements (reported by on State);
- to what level and for which type of upgrade or change a declaration of conformity has to be delivered to the NSAs is a matter for discussion. As a matter of interpretation declarations of conformity may be equally triggered by very small changes in regular maintenance of system constituents or by the introduction of major new systems such as a complete new ACC. To avoid a meaningless large amount of declarations of conformity, it will be necessary to produce additional guidance for NSAs, ANSPs and manufacturers with respect to these matters;
- equipment manufacturers are not sufficiently aware of the requirements in the Regulation. The Regulation does not require a technical file (TF) until 2011 in cases where only a constituent of a system is replaced. The record of information required to produce a TF may be 'lost' by that time.

Safety – accident, incident and occurrence reporting

Definition of organisational framework/implementation

Designation/appointment/establishment of entities/bodies for accident, incident and occurrence reporting

Most States (27 out of 30) have established and/or named a permanent civil aviation body/entity, which they have entrusted with the independent safety investigation of accidents and incidents (AIB) (Article 6.1 of Directive 94/56/EC). One State has not established an AIB and 2 States did not provide an answer (See Fig. 32).

In 15 States out of 30, the AIBs are under the authority of the State MoT. In 5 of the States, the AIB is independent. In 7 States, the AIB is under the authority of other ministries.

ECCAIRS⁴ tool, and “just culture” for safety

The majority of the NSAs are using the ECCAIRS tool for data collection and analysis (18 States out of 30). However, a significant number of States (9 out of 30) stated that they are not using the tool, and 3 States did not provide an answer (See Fig. 33).

In most States (22), the authors of the safety reports are protected either by law or by working practice, e.g. de-identification of the reports. However, the level and extent of application of such “working practices” vary from State to State (See Fig. 34).

In most of the States (21), it is not compulsory to provide feedback to the authors. 2 States did not state whether it was compulsory or not to provide the authors with feedback.

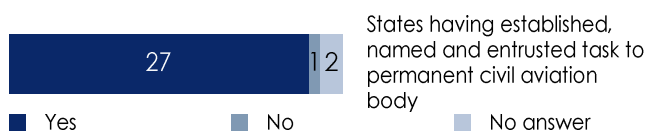


Fig. 32: Permanent civil aviation body established



Fig. 33: Usage of ECCAIRS tools



Fig. 34: Just culture

⁴ European Co-ordination Centre for Aviation Incident Reporting Systems. The ECCAIRS occurrence reporting system is a set of applications that provide together a complete solution to organisations that want to collect aircraft incidents and accidents in an ICAO compatible format.

Safety - ATCO licensing

Definition of organisational framework/implementation

Nomination of national supervisory authorities for certification and supervision of training providers (Article 3 of Directive 2006/23/EC)

Out of 30 States,

- 24 have appointed or intend to appoint either the NSA already nominated or the CAA as the authority to assume the supervision duties defined in the ATCO licensing Directive;
- 2 have appointed authorities that are not the already established NSA(s) (e.g. Licensing Inspectorate, Personnel Licensing and Aviation Medicine Department),

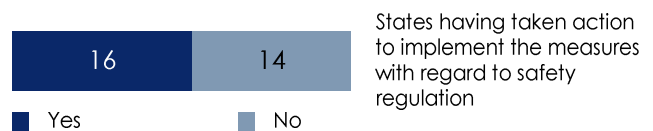


Fig. 35: Safety regulation of engineering and technical personnel

Designation of national authority for safety oversight of engineering and technical personnel (Article 8 of Regulation (EC) 2096/2005)

Twenty-two States have designated or intend to designate either the NSA or the CAA to ensure compliance with defined common requirements regarding safety regulation of engineering and technical personnel.

In 16 out of 30 states, action has been taken to implement the measures defined in the common requirements with regard to the safety regulation of engineering and technical personnel. However, 14 States have not yet taken any action (See Fig. 35).

The States that have taken action addressed the following main categories of safety-related ATM tasks (See Fig. 36):

- maintenance (15);
- AIS (10);
- surveillance & communication equipment (5);
- flight calibration of nav aids (11);
- CNS (6).

The States which issue certificates (14 out of 30) do so in the form of a combination of ANSP personnel attestations approved by the NSA and personnel certificates issued by the NSA.

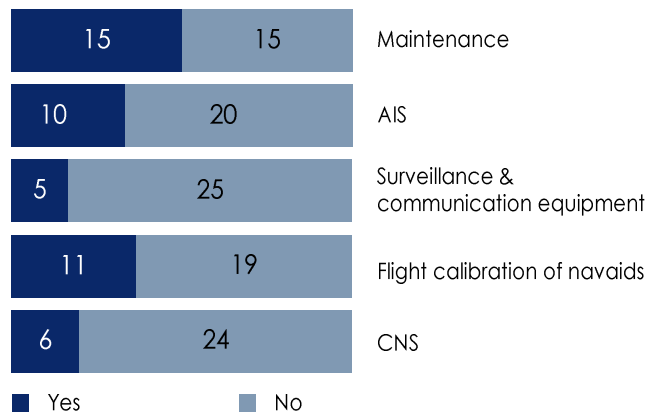


Fig. 36: Categories of safety-related ATM tasks addressed

Conclusions

Current situation

Impact on national legislation

The large majority of the States are not experiencing any difficulty adapting their national legislation to the SES Regulations. Also, the 3 Directives have been transposed in most States, with the exception of Directive 2006/23/EC on a Community air traffic controller licence, which was published less than 4 months before 31 July 2006 (surveys' cut-off date).

Furthermore, it can be concluded that most States have designated or intend to designate either the NSA or the CAA to assume supervision duties on air traffic controllers (including students).

Establishment of NSAs

The formal aspects of establishment of the NSAs are practically in place (with perhaps one exception at the time of the survey). However, several States have encountered significant difficulties, related mainly to the lack of an appropriate adapted legal framework, lack of resources (human and financial), and/or lack of experience.

6 States expressed their intention to make use of recognised organisations.

Most States will delegate to their NSAs, the responsibility of monitoring the rights and conditions applied to the designation.

It appears that the impartial and transparent exercise of powers will be largely ensured through a variety of mechanisms.

A mechanism for consulting stakeholders is in place in most of the States.

NSAs have encountered difficulties in generating and establishing documented procedures for monitoring and inspections.

Nevertheless, on 31 July 2006 the majority of the NSAs had already executed surveys or inspections and most of them had identified measures that needed to be implemented by ANSPs.

The NSAs' budgets are financed mainly through air navigation charges and/or the State budget. Despite the established costs for 2006, the NSAs expect their capital cost and the total effort in terms of FTEs to increase in 2007. This practically suggests that the NSA establishment is an ongoing process.

Service provision

On 31 July 2006, a large number of ANSPs had already applied for certification, but most of them were from only 2 States. At that time, a significant number of States had not received any applications from ANSPs. The applications received by the NSAs show that the ANSPs are applying for all types of services, in most cases for a bundled certificate.

A number of ANSPs from 6 States have applied, and two military ANSPs intend to apply, for certification subject to derogation. Derogation has been already granted to ANSPs by 2 States, who have also established documented policies on granting derogations. A few States reported that they had designated providers of ATS and METS, whereas more than half of the remaining States expect to designate by the end of 2006. In the case of ATS designation, it can be assumed that this was carried out by means of existing national legal mechanisms. For some ATS providers, the certification process had not been completed by 31 July 2006.

The majority of ANSPs use the services of other ANSPs, mostly for METS and ATS.

There is cross-border delegation of ATS in the majority of the States.

Most of the ANSPs have published an annual report for 2005 containing the financial results and submitted it to independent auditors.

Almost all ANSPs exchange relevant operational data in real time, and grant access to these data to appropriate authorities, certified air navigation service providers, airspace users and airports

Conclusions

Current situation

Airspace

Most States have expressed their intention to establish a cross-border FAB, even though practical implementation is uncertain in many cases. Lack of coordination between neighbouring States is among the inhibiting factors.

With regard to airspace classification, it should be noted that the majority of the States believe that there are no operational reasons for changing their current division level (FL195 or FL245). Only 3 States apply FL285.

The application of FUA provisions is used by most States to organise their airspace for ATM civil/military coordination at the 3 ASM Levels without difficulties. For a few States, the SES Regulations are an opportunity to start the process of revising the airspace organisation in accordance with the FUA provisions.

Almost all States are applying ATS airspace classification to organise their upper airspace for ATS provision.

The majority of the States are engaged in cooperation with their neighbours mainly to establish related agreements to coordinate their national airspace policies for joint management of cross-border activities. Additional agreements within the States relate to the establishment of a single common set of procedures and standards for separation between air traffic services units and controlling military units.

Interoperability

Interoperability is probably the field where less advancement was observed. This was perhaps because priorities were assigned to more urgent tasks such as the adaptation of national legislation, the establishment of NSAs and the certification of the ANSPs.

Moreover, the provision of further appropriately detailed guidance would be beneficial to most States. In this regard, it is important to focus on the further implementation of the interoperability requirements.

NSAs, ANSPs and some equipment manufacturers have had significant problems in interpreting the requirements of the interoperability Regulation and in identifying an appropriate methodology for compliance.

Conclusions

Future perspectives

The Survey Questionnaire was inter alia designed with a view to identify future trends. Following the compilation of the replies, and assuming that unpredicted disruptive changes will not occur in the near future, it was possible to identify the following trends.

Impact on national legislation

It is anticipated that States will continue to adapt their national legislation to the SES legal and regulatory framework, which is currently in a dynamic mode. The changes and adaptations will be mainly focused on aligning the national legislation with the SES, to ensure the ongoing completion of the SES implementation.

Furthermore, States will continue to fully implement the Directive on a Community air traffic controller license to ensure the harmonisation of safety standards and improvements to the operation of the Community ATC system.

Establishment of NSAs

The process of bringing the NSA into full operation is currently ongoing, although the NSAs are of course primarily engaged in the service certification. One of the main external issues that the NSAs face on their road to full establishment is that the description of their functions, tasks, processes, responsibilities and competences is spread in practically seven (currently) available regulations and in the related Directives. The following strategic dilemma is also affecting progress. Should a State proceed to the full establishment of its NSA(s) regardless cost-efficiency considerations or should rely on regional co-operation (i.e. complementary use of NSAs in a region/FAB), and/or use of Recognised Organisations. It will be therefore some time before NSAs become capable one way or the other to perform adequately all the tasks and functions required by the SES legislation. Considering the dynamic ongoing nature of SES rule-making, this might be an emerging pattern of activity for the next five years or more.

After the nomination or establishment of the NSAs, the effective complete implementation of NSA functionalities will continue. The sustainable availability of qualified human resources and sufficient financial means appears to be an enabler to this process. The full implementation of NSA functions will require not only time but also further harmonisation and levelling on a European scale.

It is envisaged that the implementation of ESARR 1 will play a key role in supporting and harmonising the core NSAs processes in supervising safety. It should be also noted that the ongoing certification process is taking place in a rather non-favourable context. Many NSAs are facing problems in executing their functions due to the lack of appropriate resources and lack of experience. It is estimated that difficulties of this type combined with delays faced by some ANSPs may force approximately 20% of the constituents to apply the six-month allowance to accomplish certification.

In the coming years, regular ongoing supervisions, peer reviews and systematic surveys like the one reflected in this report will be essential factors to ensure validation of the results obtained by the current initial certification.

Service provision

States whose airspace is wholly or partly covered by air traffic or MET services having their principle place of operation in neighbouring States will have to designate a service provider certified by the NSAs of another State, provided that the neighbouring State is a Member of the European Union. This means that the ANSPs and their respective NSAs will have to cooperate to a greater extent than today. This issue may affect airspaces in the fringes of the European Union. The enlargement of existing and/or proliferation of European Common Aviation Areas it is a way forward.

Airspace

Many States intend to establish functional airspace blocks, but actual agreements with involved parties are still under consideration, and consequently the implementation of most FABs is not anticipated in the near future (2007-2008).

Interoperability

There are indications that States and their ATM stakeholders may risk perceiving different interpretations of the interoperability Regulation. This may result in a reduced harmonisation, something crucial in achieving interoperability. Additional appropriately detailed but not over-prescribed implementing rules may help to avoid this. Moreover, SESAR deliverables are expected to be instrumental in this field.

ANNEX A - RECOMMENDATIONS MADE BY THE STATES

All participants in the survey were encouraged to provide recommendations based on their proper experience. A summary is provided in this section.

Further changes/additions to the current SES legislation should take into account lessons learned during the implementation phases currently in progress. There is also a strong suggestion that an impact assessment must take place before any new future implementing rule is introduced.

“SES Implementing Rules currently under development should rather concentrate on high-level principles”.

Legal means should be identified in order to properly involve the military authorities in the SES legislation, defining precise responsibilities and tasks.

Definitions within the SES legislation should be clarified, and certain States support the promulgation of an official set of acceptable means of compliance. Guidance also appears to be required as regards the scope of recognised organisations, security, and certification of communication service providers and their link with external suppliers or subcontractors to the service provision.

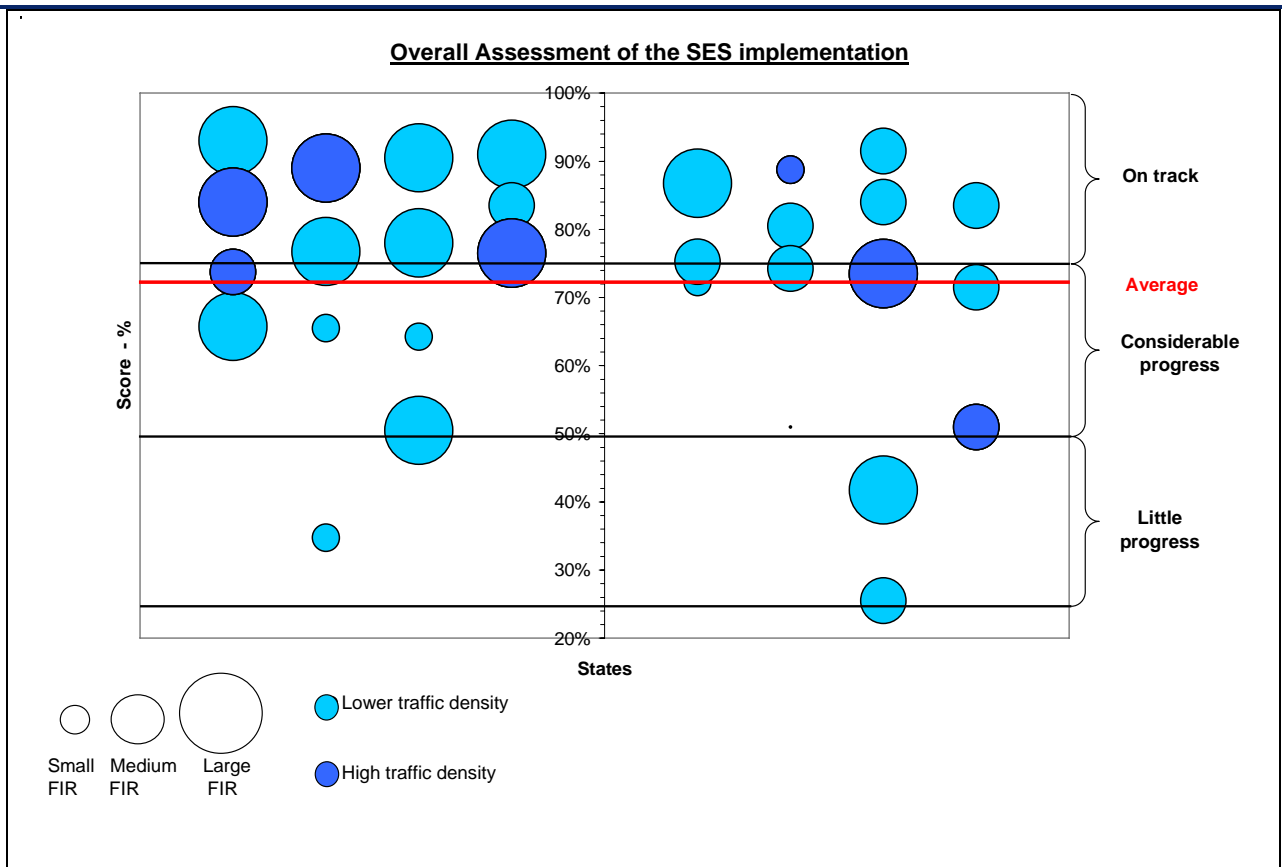
More coordination is required between EUROCONTROL’s safety initiatives and SES regulations, including the transposition of ESARR 1 and promulgation of a unified, Europe-wide, safety target level and acceptable service quality level.

The consultation and decision-making mechanism in the Single European Sky Committee should be improved with the involvement of ANSPs.

Uniformity in the interpretation of the interoperability Regulation should be facilitated by the publication of a generic implementing rule.

ANNEX B - ASSESSMENT OF SES IMPLEMENTATION PROGRESS

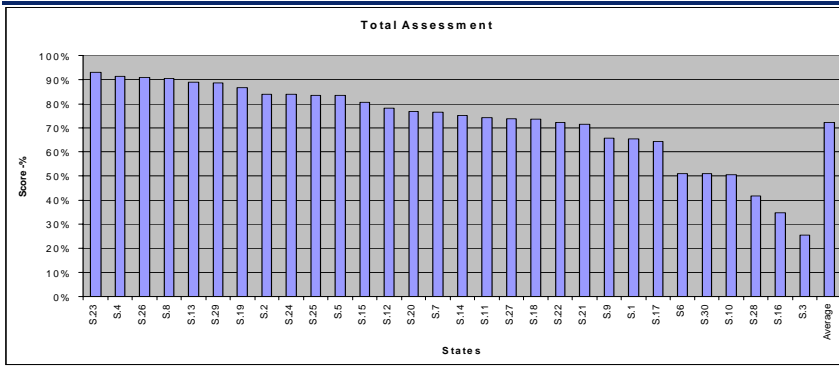
Thirty States and their ATM constituents have been assessed in relation to their status of the SES implementation. The assessments were conducted to enable inter alia a comparative presentation of the overall picture of the SES implementation. The States have been assessed and a total score was assigned to each State based on this assessment. The details of the assessment and scoring process are presented in the document Methodology, which is available on request from EUROCONTROL. A chart shows the total scores of the States is presented in the graph below. Following this, are graphs showing the scores for each of the assessed SES implementation areas.



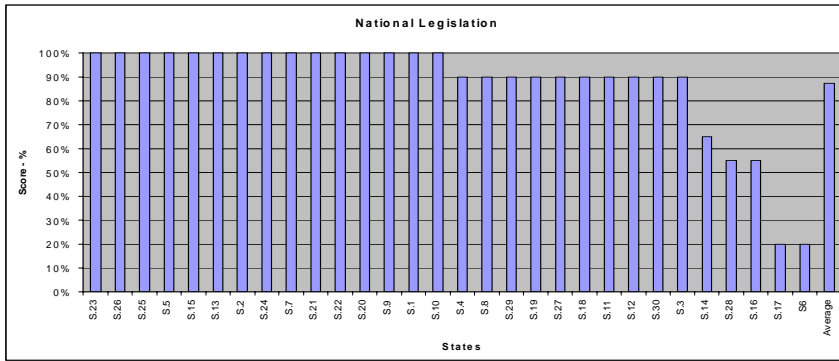
The States are represented as circles coloured deep or light blue, pending on the traffic density⁵, with the relative size indicating the size of the geographical scope of the FIR (small, medium and large). The estimated scores (%) to the States are indicated on the vertical axis in the graph. Scores above 75% are "On track", scores between 50% and 75 % show "considerable progress" and scores between 25% and 50% show "little progress".

States with high traffic density are all but one above 72%, which is the average total score. The same remark is generally valid for the States with large FIRs corresponding mainly to large states having the means to cope. States with small FIRs are with one exception worse than "on track" indicating that smaller states faced more important difficulties in implementing SES. There were no identified differences between new and old member states.

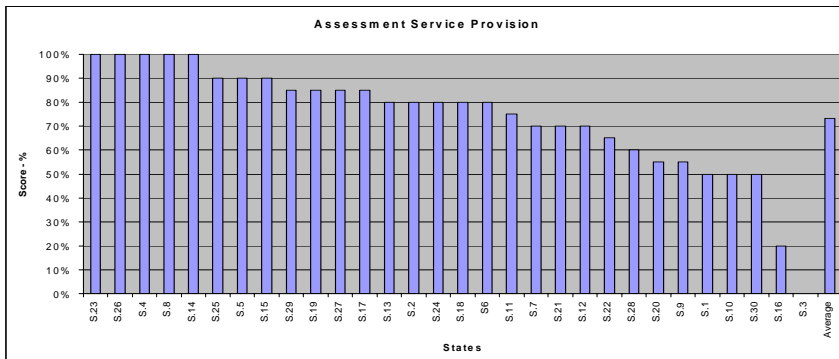
⁵ Based on the Performance Review Report - An Assessment of Air Traffic Management in Europe during the Calendar Year 2005, April 2006 Performance Review Commission.



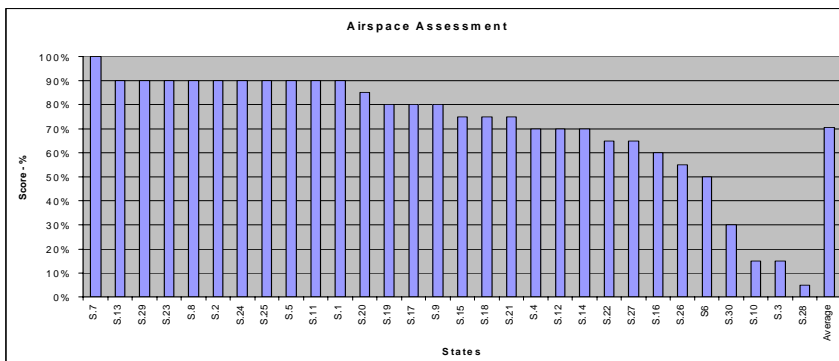
Ten States were below the average score of 72% and 20 were above. In general, the States that are below the average, are significantly below and the remaining States have high scores.



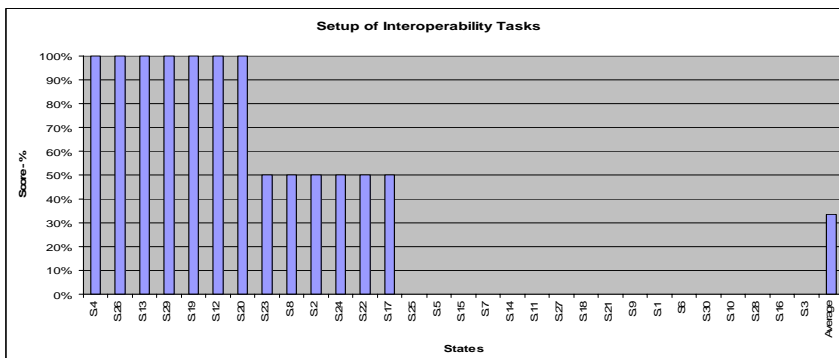
Overall picture is very satisfactory. However at least two states were practically very late in adapting their legislation. The average score is 87%.



Service provision practically established since the ICAO Convention had the lesser difficulties to adapt. However, one state appeared to have serious problems while five more needed to devote considerable effort to catch-up. The average score is 73%.



In relation to the Airspace regulation, the majority of States received relatively high scores. 4 States however, scored very low. The average score is 71%.



The setup of the interoperability tasks have not started in many States. Thus 17 States scored 0%. The average score is 33%.

ANNEX C - OVERVIEW OF THE WORK PERFORMED BY EUROCONTROL

Since 2004 and pursuant to Article 8 of the Single European Sky (SES) framework Regulation (Regulation No 549/2004, OJ L 96 of 31.3.2004), the European Commission has issued mandates to EUROCONTROL for the development of draft implementing rules which fall within the remit of the Organisation in the areas covered by Article 3 of the framework Regulation:

SES Regulations	Article	Mandates / Implementing rules
Airspace	6	Airspace Design
Airspace	4	Airspace Classification
Airspace	7	Flexible Use of Airspace
Airspace	5	<i>Functional Airspace Block *</i>
Airspace	9	Air Traffic Flow Management
Airspace	9	<i>European Upper Flight Information Region (EUIR) *</i>
Airspace	9	<i>Single Aeronautical Information Publication for EUIR*</i>
Service Provision	14	Common Charging Scheme
Interoperability	3 & Annex II	Interoperability Mandates (full list in Annex 1)
Framework	11	Performance Review

*Non-regulatory mandates

With reference to Article 11 of the framework Regulation, a mandate on performance review was entrusted to the EUROCONTROL in 2005. In 2006, the SES activities were added to with a mandate for a safety risk classification scheme.

The complete list of all SES-related activities and consequent deliverables produced by EUROCONTROL by the end of July 2006, the cut-off date for this report, is given in Annex 1. A reference is indicated to distinguish between the Regulations which constitute the legal scope of the factual review and others excluded from this report.

For the development of implementing rules, which fall within the remit of EUROCONTROL, the EUROCONTROL Permanent Commission delegated authority to the Agency to accept and execute mandates from the European Commission (CN Directive No. 04/63). Specific working and management structures and consultation processes have been used to support the production of deliverables.

EUROCONTROL has made use of an extensive consultation process on its SES activities by means of informal stakeholder consultation workshops and formal consultation, using appropriate steps of the EUROCONTROL Notice of Proposal for Rule-Making (ENPRM) mechanism.

Informal consultation has been organised through ad hoc stakeholder groups and/or through existing EUROCONTROL working arrangements. EUROCONTROL advisory and consultancy bodies were also kept informed, notably the ATM Consultation Group and the CESC. Thus wide spectrum of ATM stakeholders has been associated with the development of SES legislation:

EUROCONTROL SES deliverables are published on the Agency's Extranet:
www.eurocontrol.int/corporate/public/standard_page/sk_mandates.htm

OVERVIEW OF EUROCONTROL SES ACTIVITIES (31/07/06)

Regulatory mandates

PROCESS STEPS & DELIVERABLES	Delivery of Initial Plan	Regulatory Approach			Implementing rule and justification material drafting process			Delivery of Final Report	
		Written (formal or informal) consultation	Stakeholder Consultation workshop	Delivery of Regulatory Approach document	Delivery of Draft final Report	Formal consultation	Stakeholder consultation workshop	Actual date	Deadline as in Mandate
Common Charging Scheme	End March 04	Study Group meeting on 18 May 04 Large scale STK consultation workshop on 7 June 04			End July 04	19 July to 17 Sept. 04	29 Sept. 04	19 Nov. 04	End Oct. 04
Airspace Design & Airspace classification for the upper Airspace	2 April 04	Large scale STK consultation workshop on 3 June 04			End July 04	Mid July to 27 Aug.04	7 Sept. 04 (2 nd stakeholder consultation)	3 Jan. 05	15 Oct. 04
Airspace classification for the lower airspace (between FL 285 and FL 195)	2 April 04	Not required as deliverable			8 March 05	Mid Jan. to 11 March 05	19 Jan. 05	May 05	March 05
Flexible Use of Airspace	2 April 04	Large scale STK consultation workshop on 2 June 04				End July to 27 Aug. 04	8 Sept.04 (2 nd stakeholder consultation)	3 Jan.05	15 Oct. 04
Interoperability/ Initial Flight Plan	End April 04	Not required as deliverable			29 Oct. 04	End Nov to 7 jan.05	26 Jan. 05	23 Mar.05	End Jan. 05
Interoperability/ Coordination and Transfer	End April 04	Not required as deliverable			29 Oct. 04	End Nov to 7 jan.05	26 Jan. 05	31 Mar. 05	End Jan. 05
Interoperability/ Flight Message Transfer Protocol *	End April 04	Not required as deliverable			29 Oct. 04	End Nov to 7 jan.05	26 Jan. 05	31 Mar.05	End Jan. 05

OVERVIEW OF EUROCONTROL SES ACTIVITIES (31/07/06)

Regulatory mandates

PROCESS STEPS & DELIVERABLES	Regulatory Approach				Implementing rule and justification material drafting process			Delivery of Final Report	
	MANDATES	Delivery of Initial Plan	Written (formal or informal) consultation	Stakeholder Consultation workshop	Delivery of Regulatory Approach document	Delivery of Draft final Report	Formal consultation	Stakeholder consultation workshop	Actual date
Interoperability/ Air-Ground Voice Channel Spacing (above FL 195)	End July 05	Mid Nov. 05	12 Dec. 2005	End Jan.06	Mid April 06	23 May to 24 July 06	5 Sept. 06	15 Oct. 06	End June 06
Performance Review	15 Dec. 05 preceded by an initial consultation on 13 Dec. 05	End date: 16 June 06	27 June 06	21 Aug. 06	End Oct. 06	Nov to Dec. 06	15 Feb. 07	End Feb. 07	End Feb. 07
Air Traffic Flow Management	25 Nov. 05	End date: 14 Mar. 06	5 July 06	Mid Oct 06	Nov. 06	27 Nov to Jan 07	7 Feb 07	End May 07	End May 07
Interoperability/ Aeronautical Data integrity	End July 05	27 Jan. to 27 March 06	2 May 06	31 May 06	Dec. 06	End 06 to Feb. 07	March 07	April 07	April 07
Interoperability/ Data Link Services	End July 05	27 Jan. to 27 March 06	3 May 06	31 May 06	Feb. 07	End Feb. to April 07	May 07	June 07	June 07
Interoperability/ Mode S interrogator code allocation	Early June 06	Oct.-Nov. 06	6 Dec. 06	20 Dec. 06	End March 07	April to May 07	tbd	End June 07	End June 07
Surveillance Performance and interoperability requirements	Early June 06	Mid Oct. to Mid Dec. 06	tbd	5 Jan. 07	31 May 07	tbd	tbd	July 07	July 07
Safety/Risk classification scheme	12 July 06	Jan-Mar. 07	Early May 07	20 April 07	20 Dec 07	Oct-Dec07	Mid Jan 08	20 April 08	20 April 08

Step achieved Tbd: To be defined Planning data are indicative and in italics
 (*) A EUROCONTROL specification was completed in June 06.

Implementing rules under SESFARR scope

OVERVIEW OF EUROCONTROL SES ACTIVITIES (31/07/06)

Non-regulatory mandates

Community specifications

INDICATIVE DATES FOR PROCESS STEPS & DELIVERABLES	Functional Airspace blocks	EUIR	Single AIP
Delivery of Initial Plan	May 04	29 Nov. 05	21 Dec. 05
Stakeholder Consultation on Options approach	1 st consultation 28-29 Sept. 04	11 April 06	12 April 06
	2 nd consultation 22-23 Nov. 04		
Delivery of Options Approach document	Not required	<i>October 06 (pre-release version sent on 13 July)</i>	<i>15 Dec. 06</i>
Stakeholder Consultation workshop (issues and most suitable option)	17-18 Feb. 05	<i>23 Oct. 06</i>	<i>30 Nov. 06</i>
Delivery of Draft final Report	N.A	<i>31 Oct. 06</i>	<i>1 Feb. 07</i>
Delivery of Final Report	31 May 05 (end March 05 in Mandate timetable)	<i>31 Dec. 06</i>	<i>31 March 07 (initially 20 Dec. 06)</i>

INDICATIVE DATES FOR PROCESS STEPS & DELIVERABLES	IFPS User Manual	OLDI and ADEXP
Delivery of Initial Plan	<i>17 Oct. 06</i>	<i>17 Oct. 06</i>
Formal consultation	<i>Early Feb. to Mid Mar. 07</i>	<i>Early July to early Sept. 07 (mid Sept. 07 for ADEXP)</i>
Stakeholder Consultation workshop	<i>Early May 07</i>	<i>Mid Oct. 07</i>
Delivery of Final Report	<i>27 July 07</i>	<i>1 Dec. 07</i>



Step achieved

Tbd: To be defined

Planning data are indicative and in italics

A tribute

It is perhaps apparent to the reader that a large number of people were behind the front stage performing in teamwork the complex and extensive work reflected to a certain degree in this condensed Report. The EUROCONTROL Agency set up a multidisciplinary team of experts, the Commission engaged a number of officials and the participating States contributed with their own resources. In particular they nominated Focal Points who carried out the delicate yet impressive task to disseminate the questionnaire, accumulate and organise all the answers to provide the right and objective picture of their Country.

European Commission

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All these people deserve a reference and this is what this part of the report does. All contributors are mentioned by alphabetical order. However, the work of EUROCONTROL staff would not have been so fruitful and to the point, should the support, encouragement and advocacy of the Director ATM Strategies Bo Redeborn, the former and current Heads of the Stakeholders Implementation Service Division, Ken Eideberg and Dimitris Apsouris, were not offered unconditionally throughout the project.

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Abbreviations

ACC	– Area Control Centre
ADEXP	– ATS Data Exchange Presentation
AIB	– Accident Investigation Board
AIP	– Aeronautical Information Publication
AIS	– Aeronautical Information Service
AISP	– Aeronautical Information Service Provider
AMC	– Airspace Management Cell
ANS	– Air Navigation Services
ANSP	– Air Navigation Service Provider
ASM	– Airspace Management
ATC	– Air Traffic Control
ATCO	– Air Traffic Controller
ATM	– Air Traffic Management
ATS	– Air Traffic Services
ATSP	– Air Traffic Service Provider
CAA	– Civil Aviation Authority
CESC	– Chief Executive Standing Committee
CFMU	– Central Flow Management Unit
CN	– Permanent Commission EUROCONTROL
CNS	– Communication, Navigation & Surveillance
CNSP	– Communication, Navigation & Surveillance Provider
EC	– European Commission
ECCAIRS	– European Co-ordination Centre for Aviation Incident Reporting Systems
ENPRM	– EUROCONTROL Notice of Proposed Rule-Making
ESARR	– EUROCONTROL Safety Regulatory Requirement
FAB	– Functional Airspace Block
FIR	– Flight Information Region
FTE	– Full-Time Equivalent
FUA	– Flexible Use of Airspace
GAT	– General Air Traffic
ICAO	– International Civil Aviation Organisation
IFPS	– Initial Flight Plan Processing System
IR	– Implementing Rules
METS	– Meteorological Services
METP	– Meteorological Services Provider
MoT	– Ministry of Transport
NSA	– National Supervisory Authority
OAT	– Operational Air Traffic
OLDI	– On Line Data Interchange
QMS	– Quality Management System
SES	– Single European Sky
TF	– Technical File