

STUDY ON COMMON REQUIREMENTS FOR THE PROVISION OF AIR NAVIGATION SERVICES

FINAL REPORT

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1 INTRODUCTION

1.1 OVERVIEW

This document forms the final report for the study on common requirements for the provision of air navigation services and is prepared by Booz Allen Hamilton Ltd. and its subcontractors ScanAvia A/S.

There were three phases to the study:

- Phase One – Investigation
- Phase Two – Definition of Common Requirements System
- Phase Three – Requirements for Access to and Use of Data.

This report focuses on presentation of the main results of the Study: a set of Common Requirements for certification of service providers in Air Navigation Services (ANS), as determined by the work undertaken in Phase Two.

In addition, it presents a review of findings from Phase Three relating to the requirements for access to, and use of, operational data. Further explanatory material can be found in the Interim Report which presents the detailed findings from Phase One of the Study.

1.2 COMPOSITION

This document is set out as follows:

- Section 2 provides background to the study including an overview of the legislative package implementing the Single European Sky
- Section 3 describes the certification scheme in more detail and explains the role of the Common Requirements
- Section 4 sets out the Common Requirements themselves, tabulated with explanatory comments and high-level impact analyses
- Section 5 looks at some key certification issues from the point of view of the National Supervisory Authorities (NSAs)
- Section 6 describes the functions of NSAs and outlines some simple principles required of such an organisation
- Section 7 consists of recommendations relating to the use of, and access to, operational data associated with the Common Requirements
- An appendix to this report presents a separate listing of the Common Requirements.

2 BACKGROUND TO THE SINGLE EUROPEAN SKY

2.2 THE NEED FOR PROGRESS

The Single European Sky (SES) will be a harmonised and integrated network, providing for safe, orderly and efficient air transport. As such it will facilitate the movement of people and goods across the Community and between Member States and third countries. Since air traffic is anticipated to grow considerably over the longer term it must also contribute to a reduction in the environmentally damaging effects of air transport.

Member States have recognised that an important part in achieving these overall aims is that air navigation services should make optimum use of the limited resource which is airspace. The development of the SES presents an opportunity to improve the efficiency of the overall aviation infrastructure and to contribute to the reduction in the level of delays experienced by passengers and freight customers in recent years. Although in many cases delays may be attributable to airport or airline factors, a significant proportion are generated through a lack of capacity in airspace or through inefficient application of that capacity.

A more efficient system will assist in reducing the workload of pilots and controllers, and therefore contribute to the safety of air travel by its very existence. Indeed, the various elements of the SES proposals are designed to combine to support safety.

The vital safety element inherent in the provision of air navigation services, together with its social and economic importance, means that a simple facilitation of harmonised standards in Europe is insufficient to address the issues. Instead, a legislative and regulatory framework is required to detail requirements that are more aligned to meet the goals of the SES.

2.2 LEGISLATIVE PACKAGE

This study supports the European Commission's work towards the creation of the SES. Legislation is intended to encourage an integrated approach, addressing the interconnected entities and industries as a whole, but recognising that Member States will maintain the right to decide the statutes and structure best suited to their specific national conditions.

A package of four separate, but interdependent, regulations has been adopted as the Common Position of the Council and European Commission which together establish the SES legislation:

- The framework regulation
- The service provision regulation
- The airspace regulation
- The interoperability regulation¹.

2.2.1 The Framework Regulation

The first of the Regulations sets out the overall framework which aims to facilitate the safe and regular operation of air traffic management in Europe. It describes the objective and

¹ Framework: 2001/0060 (COD); Service Provision 2001/0235 (COD); Airspace 2001/0236 (COD); Interoperability 2001/237 (COD), adopted on 18th March 2003. In this report references are to regulation names rather than to document numbers.

scope of the SES, defines the various parts and establishes the supervisory elements of the SES.

An important part of the framework, and one with relevance to the development of Common Requirements for air navigation services, is the provision which distinguishes between regulation and service provision. This need was confirmed by the report of the High Level Group on the Single European Sky of November 2000. Thus, Article 4 of the framework regulation mandates Member States to “nominate or establish a body or bodies as their national supervisory authorities”, and goes on to require “adequate separation, at the functional level at least” between national supervisory authorities and service providers².

National Supervisory Authorities (NSAs) are to be responsible for ensuring that Common Requirements for air navigation services are adhered to in each Member State, as detailed under the Service Provision Regulation, so that a service provider maintains its certificate to provide Air Navigation Services.

2.2.2 The Airspace Regulation

The airspace regulation will enable more integrated management of airspace and the development of new procedures for air traffic management, by the creation of Functional Airspace Blocks (FABs) which may be established across national boundaries. The introduction of FABs is designed to enable optimum use of airspace, taking into account air traffic flows, and to ensure a fluent and flexible transfer of responsibility for air traffic control between air traffic service units across national boundaries. Their establishment recognises, however, Member States’ sovereignty over and obligations for, their national airspace as detailed in the 1944 Chicago Convention and its annexes.

2.2.3 The Service Provision Regulation

States’ responsibilities under the Convention for provision of air navigation services in their airspace, and the liability they accept for the safety of users, mean they have developed national legislative approaches specific to the individual State concerned and these vary in their content and methods of regulation, certification and enforcement. Different authorised (or non authorised) service providers have in turn developed their own procedures and technologies in relation to their national legislative and supporting regulatory requirements.

So that service provision can be maintained efficiently and continually across the SES, the service provision regulation includes the requirement for a common system of certification of service providers which enables the definition of their governing rules and obligations. This system is based on the principle of mutual recognition, with the objective of facilitating trans-national service provision and cooperation between service providers.

The legislation requires that certification must be granted according to common principles, for which a set of requirements at Community level are established; this study provides a definition of these Common Requirements.

A common certification system encourages transparency and accountability and contributes to a “level playing field” from the perspectives of service providers, users and regulators.

² Articles 4.1 and 4.2 of the Framework Regulation.

2.2.3.1 *National Supervisory Authorities*

A key role in the construction of the SES is to be played by the National Supervisory Authorities (NSA). Established through the Framework Regulation, the functions of NSAs are described in broad terms in the Service Provision Regulation.³

The latter Regulation delegates to NSAs the responsibility to ensure the supervision of service providers, and states that “each national supervisory authority shall organise proper inspections and surveys”⁴ to verify compliance with the terms of the Regulations.

Given that a key element of the SES is the enabling of cross-border provision of services, NSAs are also required to cooperate closely across national boundaries by the Service Provision Regulation⁵.

There are two key implications for existing regulators and service providers relating to this aspect of the framework regulation:

- The creation of a NSA requires either that an existing body be designated as the NSA or a new body created to fulfil its duties. Existing bodies may need to extend international cooperation to support formal agreements concluded between Member States, for example, on the provision of services in FABs and with other NSAs
- A minimum of functional separation between NSA and service provider must be assured.

2.2.3.2 *Recognised Organisations*

The Service Provision Regulation gives NSAs the right to delegate to Recognised Organisations the inspections and surveys required of them in Article 2. The suitability of these organisations is specified in Annex I to the Regulation, wherein they must be, *inter alia*, independent from service providers and other involved parties such as airports, have sufficient expertise and experience to perform the functions which have been delegated, and be effectively organised and managed.

2.2.4 **The Interoperability Regulation**

The legislative package is completed by the Interoperability Regulation. This aims to introduce rules for the interoperability of systems and procedures so as to ensure the coordinated and timely introduction of new concepts of operations or technology in ATM which will facilitate the provision of more capacity and greater efficiency in the European ATM network. The Regulation gains its impetus from the predominance of a variety of national technical specifications which over time have led to a fragmentation in service provision and in the systems market. The Regulation sets out the elements to which essential requirements shall be applied, in terms of achieving seamless operation and support for new concepts of operation for each system.

³ Under Article 6 of the Interoperability Regulation National Supervisory Authorities are also to be responsible for EC verification of systems acceptability.

⁴ Service Provision Regulation Article 2.2

⁵ Service Provision Regulation Article 2.3 & 2.4.

2.3 CIVIL - MILITARY ISSUES

The airspace of Europe is a finite resource, available in peacetime to all civil and military users, and the relationship between civil and military aspects of ANS is therefore important when considering the flexible, cross-border use of airspace. Military aviation comprises General Air Traffic (when military traffic operates in essence in a very similar manner to civil aviation), and Operational Air Traffic (OAT), such as aircraft operating on air defence or strike operations. This latter type requires special consideration in the arrangement of airspace and the provision of ANS.

Although civil and military users often operate in the same airspace, military authorities are driven by additional needs, in comparison with civil aviation, as they conduct operations to prepare for activities in times of war or crisis. To ensure safety and the efficient use of the airspace, some measure of agreement between the users and the service provider is essential – providers have requirements which are common to all types of user.

Although the SES legislative package recognises that military operations and training do not fall within the competence of the Community⁶, and are therefore outside the scope of Common Requirements, the Regulations are not blind to the need to ensure cooperation between civil and military providers. Neither do they prevent Member States from applying measures which safeguard security and defence interests in order to conduct military operations and training.⁷

Furthermore, Member States are mandated “to ensure that written agreements between competent civil and military authorities...are established in respect of the management of specific airspace blocks”⁸, through the terms of the Service Provision Regulation. This section of the Regulation therefore has implications for the development of Common Requirements in relation to security and organisational structure of service providers.

EU Member States have adopted a General Statement on military issues related to the SES wherein they declare their commitment to cooperate with each other in enhancing civil-military cooperation, and recognise the need to take into account national military requirements⁹.

However, despite the Community’s limited competency in military matters, the Common Requirements will apply to all military providers of services to civil traffic.

⁶ Framework Regulation Article 1.2 Objective and Scope (see also Recital 5).

⁷ Framework Regulation Article 11 Safeguards.

⁸ Service Provision Regulation Article 10 Relations with military authorities.

⁹ Council of the EU General Statement by Member States on military issues related to the Single European Sky 11/03/2003

3 THE CERTIFICATION SCHEME

3.1 CERTIFICATION OVERVIEW

The SES regulations require the certification of each provider of air navigation services by its NSA. The NSA can only issue a certificate to provide air navigation services to a provider which meets the Common Requirements – these are therefore prerequisites for its award.

A certificate for the provision of air navigation services issued to a suitably assessed applicant is to be recognised across the Community. A service provider with such a certificate may then be designated by any Member State to provide specified services. Therefore, the Common Requirements are applicable to the entire population of service providers in the European Community i.e.:

- Air Traffic Service Providers and
- Providers of support services to air traffic services

They are applicable to services provided for en route, approach and aerodrome applications.

The Common Requirements are, by virtue of their Community-wide applicability, generic requirements. They are to be distinguished from any local specific conditions which may be required of a service provider by a Member State when *designating* that service provider and defining its rights and obligations relating to the provision of services in its airspace.¹⁰ They are directly applicable to any air navigation service provider engaged in the provision of:

- Air Traffic Services
- Meteorological Services
- Aeronautical Information Services*
- Communications Services*
- Navigation Services*
- Surveillance Services.*

**Providers of these services do not require designation by a Member State since the intention of the SES is that they may be organised under market conditions taking account of the requirements of safety and the nature of ATM.*

Meeting the Common Requirements is therefore a *necessary* condition for a service provider before it can be designated. However, it may not always be a *sufficient* condition since a State is entitled to apply further local conditions which must be met before an applicant will be designated to provide services for a given airspace. Such local conditions cannot be in conflict with the provisions of the Common Requirements. Figure 1 illustrates the overall process towards designation.

¹⁰ Article 7.2 of the Service Provision Regulation requires Member States to determine rights and obligations of a service provider providing services in its airspace.

Local specific conditions may derive from various factors including for reasons of national security or for operational reasons. For example, the particular geographical nature of a State may be such that a local condition is required that a service provider be capable of providing specific services in oceanic areas. Or, where civilian personnel have access to military data, a State may want to stipulate additional security clearance requirements. Similarly, a State may present justifiable reasons for a service provider's operational personnel having to possess particular language skills.

In addition to any local conditions attached by a State on *designation*, NSAs may also attach additional conditions to certification (these are specified in Annex II to the service provision regulation).

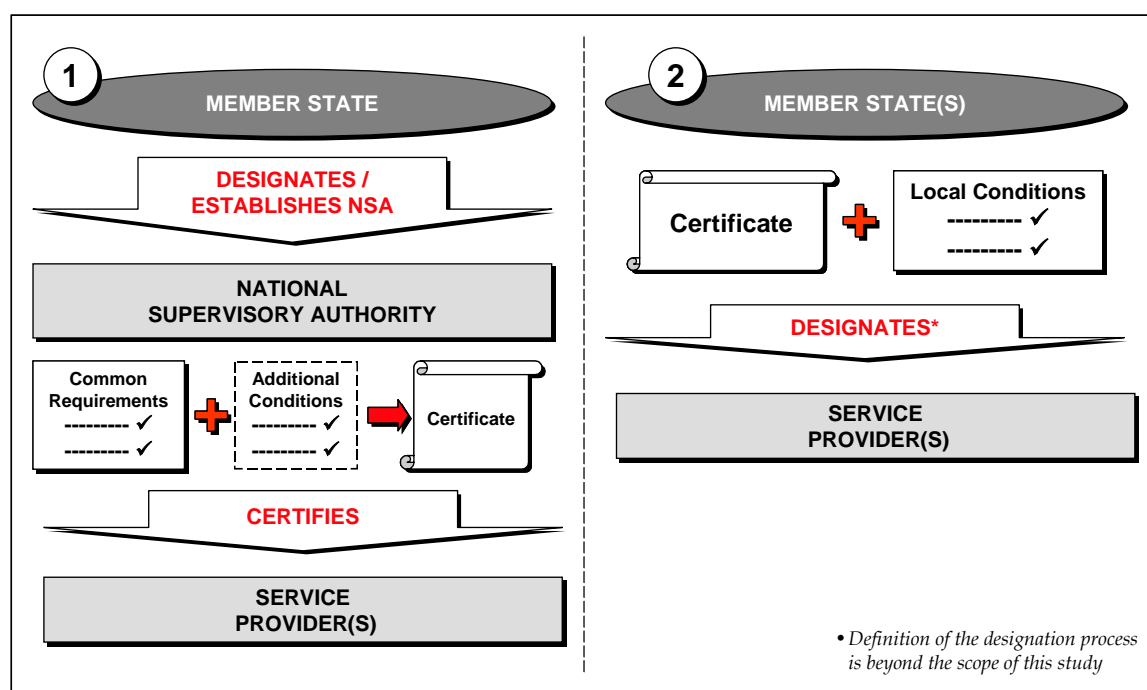


Figure 1. Certification Process Overview

In general, Common Requirements are to do with the ability of a service provider to provide a service (certification), and local specific conditions are to do with the way in which it is provided (designation).

The Service Provision Regulation confines the NSA's responsibilities to the supervision of Common Requirements - to ensure that the service provider initially complies and maintains that compliance over time. Although there is nothing in the legislative package to prevent a Member State from delegating further regulatory powers beyond the certification of service providers to its nominated NSA, absent such arrangements the NSA performs the role of inspecting and collecting information in order to assess the service provider's compliance with Common Requirements. Under the legislative package any other regulatory functions remain the responsibility of the State.

3.2 DEPTH OF THE REQUIREMENTS

It is clear that the Common Requirements must be specified at a level which ensures common measures are met by service providers, and which facilitates common interpretation and supervision. In order to achieve this, the appropriate level for the

Common Requirements must therefore be relatively detailed. It is recognised that the more detailed the Common Requirements, the greater the demands on service providers in meeting them; for some Community service providers this will require significant changes to current arrangements.

In effect, Common Requirements are an access requirement (to the right to provide services) *and* a set of standards which must be continually achieved in order to maintain the right to provide services. It is anticipated that a certificate will have no expiry date, but will be valid as long as a service provider to whom it is awarded continues to meet the Common Requirements. In this respect it may differ from designation of a service provider since the period of designation may be at the discretion of an individual State.

It can be seen from this need for on-going compliance with the Common Requirements, that they under-pin the designation and supervision process. The elements of the Common Requirements are such that the certification process is a combination of desk-based work and practical investigation or survey by NSAs, which will include inspection of facilities and interviews with relevant service provider personnel. In this way, continuing adherence to the Common Requirements can be determined.

Establishing Common Requirements thus requires the identification and development of common minimum criteria for the provision of air navigation services to the maximum extent possible, while allowing national specifics to be detailed and applied where appropriate. The Common Requirements must facilitate the aims of the SES while being reasonable and proportionate; they must take account of the different legal and institutional status of service providers as well as variations in their operational environments.

3.3 ELEMENTS OF THE COMMON REQUIREMENTS

The main elements of Common Requirements consistent with the SES legislation include:

- Technical and operational competence and suitability
- Systems and processes for safety and quality audit
- Reporting Systems
- Access to Services
- Financial Strength
- Liability and Insurance Cover
- Ownership and Organisational Structure
- Human Resources
- Security.

By their nature some of these elements overlap or interlink, and although each of the Common Requirements stands on its own, the integration by service providers of Quality Management Systems, Safety Management Systems, contingency plans and security plans,

in line with recognised best practices, will facilitate compliance with the Common Requirements as well as assisting the supervisory process.

With these requirements having been met by service providers across the Community, a more uniform application of ATM across Europe should be enabled, which ensures that any individual State implementation of service provision takes due account of the impacts of the service on the system as a whole. Figure 2 illustrates the current arrangements and the intended results.

The scope and depth of the Common Requirements will mean differing impacts across the existing population of services providers and may require further consideration if defining transitional measures on a sub-regional basis.

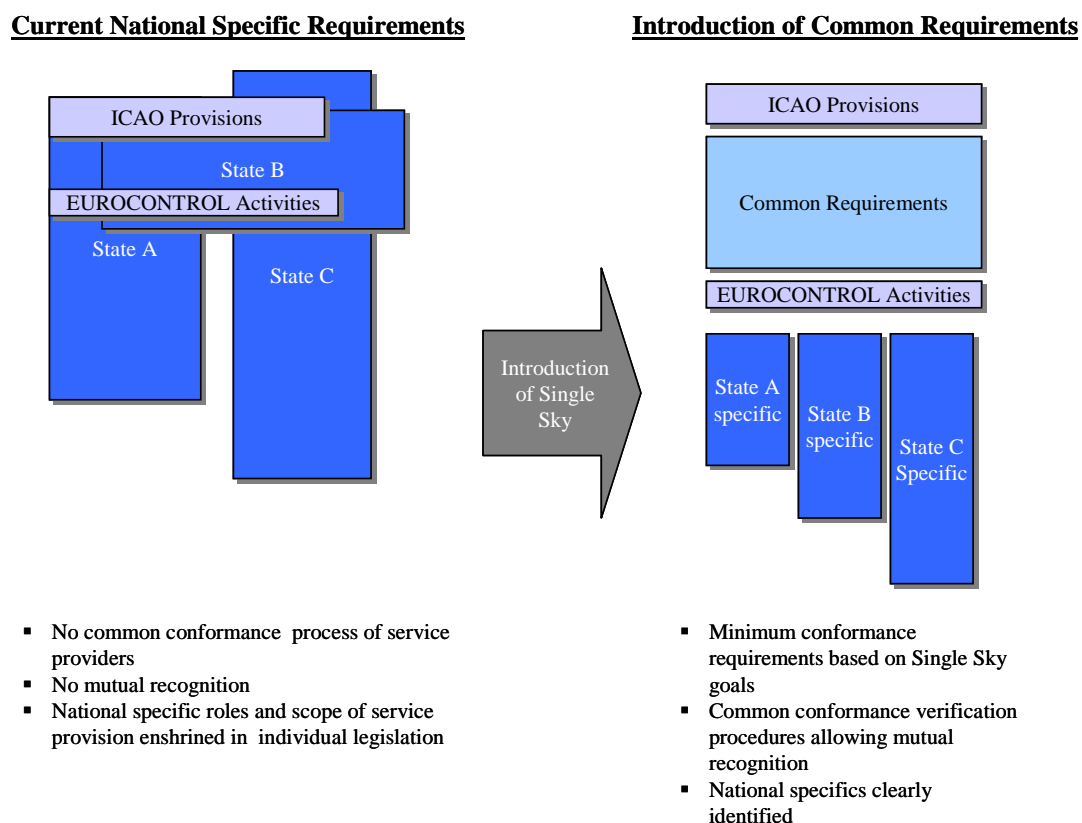


Figure 2. Application of the Common Requirements

3.3.1 ESARRs

The Common Requirements include areas which are also addressed by EUROCONTROL Safety Regulatory Requirements (ESARRs). It should be noted that the relationship between these two sources of requirements may evolve as the European Commission fulfils its obligations under Article 4 of the Service Provision Regulation to “identify and adopt the...ESARRs...that shall be made mandatory under Community Law”.

It is recognised that, in principle, critical systems such as those for safety and quality management should not be compromised by the existence of separate, and therefore potentially conflicting, sources of authority. With this in mind, the Common Requirements

have been drafted to ensure compliance with the relevant safety requirement sections of the ESARRs.

3.4 ADVANTAGES OF THE COMMON REQUIREMENTS

The Common Requirements bring additional benefits to the ANS field in forming the basis of the Community-wide certification scheme.

3.4.1 Commonality of Regulation

Specified at the correct level the Common Requirements facilitate commonality of regulation in several respects:

- a. Sufficient depth of Common Requirement reduces the opportunity for variation in interpretation by NSAs (and their supporting Recognised Organisations) and service providers alike. The Common Requirements described in this report have been drafted with this need in mind. In particular, the structure adopted is intended to remove the variety in interpretation which may arise if certificates are valid in perpetuity and no timescales are specified for review of compliance. The Common Requirements include obligations on service providers to produce a detailed plan of their activities (covering all aspects of strategy, operations, finance and organisation) at least every five years, to be updated annually and to produce an annual plan and report. In this way timescales for supervision are introduced
- b. NSAs in States where services are provided by organisations based in other Member States can be confident that services meet mutually acceptable requirements and that factors necessary for regulation are common across Europe
- c. The obligations of the SES legislative package are in general directed towards the State. However, through the Common Requirements, obligations are extended in some respects to service providers, for example by means of obliging service providers to produce information for their NSAs or through obliging providers to contribute directly to the development of general concepts such as the Flexible Use of Airspace. This placing of obligations directly on service providers has two overall effects, 1) the Common Requirements assist in the delivery of the SES by directing service provider effort as well as Member States and regulators towards its goals, and 2) supervision by NSAs is made more cooperative and transparent.

Although this also introduces a depth to some of the Requirements which may appear to be appropriately specified as part of “additional conditions attached to certificates”, as allowed for in Annex II paragraph 2 of the Service Provision Regulation, the inclusion of such provisions in the Common Requirements ensures that they are *common*, since they are applied at a Community-wide level, thus contributing to both a level playing field for service providers and to commonality of supervision. However, due to the wide disparity in the institutional and operational arrangements for service provision across the States, it is neither possible nor desirable to specify every detail of the information to be provided to NSAs (or other elements covered by Annex II),

instead this level of detail can be appropriately specified in additional conditions to be attached to certificates or on designation.

3.4.2 Facilitation of Functional Airspace Blocks

Common Requirements complement the arrangements for the construction of FABs. Once FABs are identified on the basis of operational requirements, an institutional platform is required to allow service providers to provide services in these blocks which includes the airspace beyond the boundaries of their original States. This platform, the “level playing field” necessary for the fair provision of services, is established through service providers’ adherence to Common Requirements.

3.4.3 Equal Access for Service Providers

Part of the role of the Common Requirements is to facilitate the provision of services on a “level playing field”, while enabling trans-national services. They ensure that requirements for certification are standardised so that no provider should be unfairly discriminated against.

The Common Position adopted by the Council includes the principle that Communication, Navigation, Surveillance services (CNS) and Aeronautical Information Services (AIS) should be organised under market conditions taking account of the requirements of safety and the nature of ATM. The introduction of Common Requirements therefore supports the fair operation of a market, ensuring that any certified service provider will have an opportunity to offer their services.

3.5 ADOPTION OF COMMON REQUIREMENTS ACROSS THE COMMUNITY

The Common Requirements present a change in organisation of supervisory aspects of ANS with the advent of NSAs as well as a development of the tasks of service providers in terms of their relationship with regulatory authorities.

The necessary steps in the adoption of the requirements, given the current diversity in institutional arrangements across the Community, and the existence of incumbent service providers, are expected to be as follows:

- a. A State nominates its existing regulatory body as the NSA (or where there is no such body a new organisation is established).
- b. The NSA, with the optional support of a Recognised Organisation, assesses the incumbent service provider(s) against the Common Requirements based on the services currently provided
- c. The NSA awards incumbent service provider(s) meeting the Common Requirements with a certificate to provide services across the Community
- d. The State designates certified service provider(s), for the provision of, ATS and MET services in its airspace
- e. The State ensures that its obligations for the provision of supporting services are met and services in place

- f. The NSA performs regular assessments and reviews of service provider compliance with the Common Requirements (according to at least the timescales of the service provider's plans and reports as required by the Common Requirements).
- g. Should a service provider designated for specific services fail to maintain its certificate through not complying with the Common Requirements (and corrective actions are ineffective) then the State must designate an alternative provider which does hold a valid certificate.

4 COMMON REQUIREMENTS WITH COMMENTARY

4.1 METHODOLOGY

The first phase of this Study comprised an investigation of the current institutional arrangements for ATM in Europe. The Common Requirements, which are presented in this report, have been developed in the context of the findings of the Interim Report including the results of:

- a review of the legislative proposals
- a review of the current international rules and agreements governing ANS
- a survey of existing national regimes across 25 States
- an investigation of aspects of operational data relating to its access and use.

The methodology employed for drafting of the Common Requirements has been built on the information provided in the first phase. It therefore involves a gap analysis of existing international rules and agreements and the detailed survey on existing regimes, against the background of the goals of the SES.

International agreements considered have included:

- the provisions agreed under the auspices of ICAO
- requirements and agreements developed by EUROCONTROL
- regional agreements, such as those governing the Maastricht Upper Airspace Control Centre (MUAC).

This overall methodology employed for the development of the Common Requirements is depicted in Figure 3.

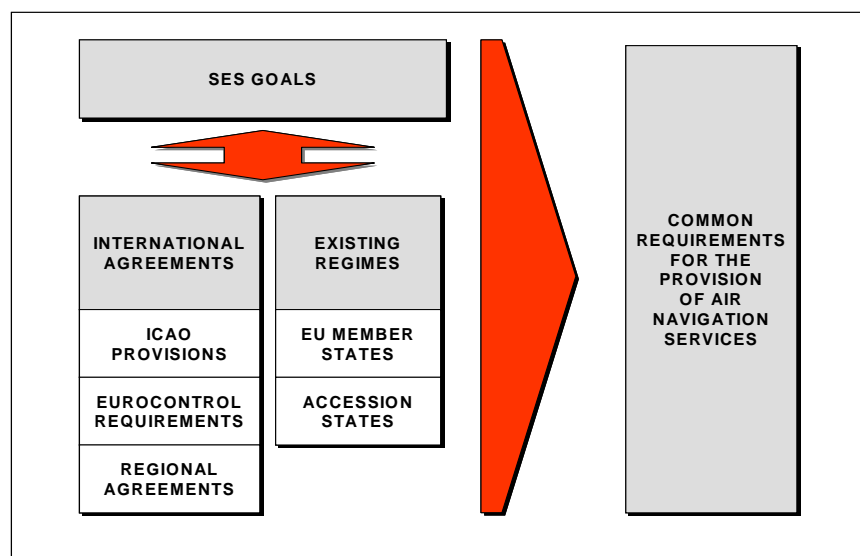


Figure 3. Methodology for development of Common Requirements

The analysis of all inputs to the process has been complemented by a consultation process including interviews with representatives of Member State's governments, service providers and regulators, wherever possible. In all cases the focus of consultation has been on ensuring the practical implementation of the Common Requirements.

4.2 STRUCTURE

The Common Requirements presented in this report are structured to achieve the benefits described in Section 3.4 above. They consist of five overall sections as follows:

1. General Requirements – developed through the methodology described above
2. Specific Requirements – focusing on obligations deriving from international rules and agreements and related to the provision of: Air Traffic Services, Meteorological Services, Aeronautical Information Services and Communications, Navigation and Surveillance services
3. Business Plan – detailed requirements to provide information to NSAs which reinforce the General and Specific Requirements and provide evidence of compliance
4. Annual Plan – requirements to provide information to NSAs on an annual basis updating the Business Plan
5. Annual Report – requirements to provide information to the NSAs on an annual basis describing service provider activities and progress against the plans.

This combination of Requirements builds a picture of the overall suitability of a service provider for certification as well as its specific capabilities for consideration by the NSA.

The structure of the General Requirements adopted in the following section includes all aspects listed in Article 5 of the Service Provision Regulation but does not follow exactly the order or adopt the titles in that Article. The structure employed is intended to maintain continuity and traceability as far as possible, but has been arranged in order to improve clarity and logical flow of the Common Requirements by placing like subjects together. Therefore, all Requirements relating to quality management, safety management, safety reporting, security and contingency planning are grouped under the overall heading of Technical and Operational Competence and Suitability since they all support assessment of that area, but also since operational practice may well find them integrated as parts of the same overall system. In fact there may be other elements of the requirements which, depending on the organisational structure of a service provider, may also be included in an overall quality management system. These may include relevant provisions under Maintenance of Operations Manuals, Capability of Staff, Human Resources Management, Operational Data and Consultation.

4.3 COMMON REQUIREMENTS

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
GENERAL REQUIREMENTS	Set of overall requirements which govern the provision of services in line with the goals of the Single European Sky.	
TECHNICAL AND OPERATIONAL COMPETENCE AND SUITABILITY	Obligations are on the service provider to produce evidence of its technical competence and suitability. Requirements under this heading are supported by the production of the Business Plan, Annual Plan and Annual Report.	
Capability of Providing Services		
1. The service provider shall be able to provide the air navigation services for which it is certified in a safe, continuous, cost-efficient and sustainable manner, pursuant with the demand for such services in European airspace.	Basic requirement supporting the legislative package. It presents as early as possible the necessity of safety and importance of sustainability.	General requirement for air navigation service provision should not impact on existing service providers.
2. The service provider shall maintain sufficient expertise in the provision of services for which it is certified, being at least equivalent to that of having provided similar services over a period of two years or more.	A requirement to have provided services or "similar services" for more than two years would restrict new entrants to the field; expertise is a qualitative measure which facilitates access.	All existing service providers have been <i>in situ</i> for more than two years (albeit some have changed their legal status).
3. The service provider shall maintain sufficient technical and operational capacity to meet the expected demand for its services.	Overall requirement for basic competence supported by information to be provided in annual plan (see 70.2 below).	
4. The service provider shall manage its organisation in such a way that it supports the safe, effective, efficient and continuous provision of services.	Basic requirement for competence directed towards management of the organisation. Further supported by Common Requirements for the Business Plan (see 69 and following).	General requirement for air navigation service provision should not impact on existing service providers.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
Maintenance of Operations Manuals		
5. The service provider shall maintain operations manuals relating to the provision of its services, including those provided in Functional Airspace Blocks.	Supports competence through formal procedures; provides a documented account which can assist NSAs in assessment of operational ability.	Some States require manuals on SMS and/or QMS in national legislation. The existing SMS of some providers includes plans and measurement of operations. At least one State has an operating procedures manual with content agreed between service provider and regulator.
5.1. the service provider shall provide copies of its operations manuals to the appropriate NSAs, with any updates.	Maintenance of operations manuals is a continuous requirement, has no particular timescales and is therefore appropriately part of General requirements and not the Business or Annual Plans or Report. This Requirement facilitates regulation by putting positive requirement on service provider. <i>This requirement may be complementary to Annex II paragraph 2 (f) of the Service Provision Regulation, conditions which may be attached to certificates.</i>	Significant variation of impact is foreseen across States. This Requirement supports the supervisory process through the transfer of ad hoc information.
Capability of Staff		
6. The service provider shall employ sufficient adequately trained personnel to ensure the provision of its services in an effective and efficient manner.	Basic, general requirement to support the SES goal of effective and efficient provision of ANS. The level cannot be specified in any more detail since the number and qualifications of staff will depend on the type of services provided and the demand for such services.	General requirement for provision of air navigation services.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
<p>6.1. the level of qualifications of the service provider's staff shall be defined in compliance with ICAO Annex 1 Personnel Licensing, (ninth edition July 2001) and with section 5 of ESARR 5, with precedence given to ESARR 5 where differences may exist.</p>	<p>Existing framework provided by ESARRs, intention to avoid conflict or duplication of effort with ESARRs. Reference is to be "in compliance" with the ESARR, not to adopt the ESARR itself, since there may be general contents which are not relevant to the Common Requirements such as those relating to implementation timescales or intent/scope. It is compliance with the "safety requirement" element of the ESARRs which is sought. The adoption of ESARRs into Community legislation under Article 4 of the service provision regulation may affect the relevance of this requirement.</p>	<p>EUROCONTROL members are obliged to implement ESARR 5 by November 2003 (including relevance to ATCOs) and April 2005 (for engineering and technical staff). Research has identified no further barriers to implementation. ESARR 5 has additional requirements to Annex 1 in some parts but does not cover all areas of Annex 1. SRC Doc 5 details differences.</p>
<p>7. The service provider shall employ sufficient adequately trained personnel to implement and maintain compliance with ESARRs.</p>	<p>Supporting requirement to reinforce safety culture in service provider. Sustainability is addressed through requirement to <i>maintain</i> compliance. Level cannot be specified in any more detail since the numbers of staff required will depend, <i>inter alia</i>, on the structure of the service provider's organisation.</p>	<p>ESARR implementation requires specialist resource allocation. Majority of States have defined plans for ESSAR implementation. These plans should include requirements for personnel.</p>
<p>8. The service provider shall maintain a register of information on the numbers, status, deployment of its staff.</p>	<p>Basic requirement to show competence in managing staff; supports service provider's ability to provide information to regulator at inspection/assessment and allows regulator comparison between providers. It will also facilitate the movement of expert staff across the Community.</p>	<p>Data should be available through Human Resources department or equivalents.</p>

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
8.1. the register shall identify the individuals responsible for ESARR coordination and implementation across the organisation.	This requirement supports the safe provision of services, through identification of responsible parties for coordination.	Clear identification of key personnel to facilitate communication and coordination.
8.2. the register shall identify the locations and duties to which its relevant technical and operational staff are assigned including any rostering methodology and the average working hours of its staff by category of staff	This requirement supports the goal of the Single Sky to see effective and efficient provision of services; it facilitates the identification of best practice being applied. The requirement is intended to cover those staff engaged in ANS related duties - where an organisation conducts non-ANS business, staff not engaged in ANS would not be expected to be included in the register.	Data should be available through Operations department or equivalent.
8.3. the register shall identify the accountable managers for safety related functions	This requirement supports safety supervision and assessment.	Data should be available through Safety management department or equivalent.
8.4. the register shall record the relevant qualifications of its technical and operational staff, against required skills and competency requirements.	This requirement supports supervision by allowing NSAs to see that sufficient staff are in place. It facilitates the movement of expert staff across the Community.	Data should be available through Operations department or equivalent.
Human Resources Management	In order that an NSA can determine that a service provider has the necessary technical and managerial staff to provide and maintain services efficiently and effectively, it must demonstrate that it has taken steps to ensure the retention and development of staff.	
9. The service provider shall maintain sufficient managerial and technical personnel to perform and maintain its services, and to meet the strategic aims of the organisation, in an efficient and effective manner	Basic requirement which contributes to the competence of the service provider. Sufficiency of personnel cannot be further specified without reference to each individual service provider's management structure.	General requirement for air navigation service provision should not impose any impact and ensure the same provisions are applied to services relevant to FABs.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
9.1. the service provider shall adopt and document formal Human Resource policies which demonstrate the service provider's competence and commitment to the development of its personnel	Requirement, together with 9.2 and 9.3 supports the requirements to provide sufficient, suitably qualified staff by strengthening HR management to contribute to retention of staff and career development in line with best practice.	At least nine of the 27 States have formal HR policies in place.
9.2. the service provider shall maintain a comprehensive set of tools and process as part of a Human Resources quality programme	Together with 9.1 and 9.3, requirement contributes to overall strength of ANS HR management across the Community.	At least four service providers in EU Member States have formal accredited HR quality programmes in place.
9.3. the service provider shall adopt formal recruitment and retention measures.	See comment on 9.2.	At least 3 Services Providers in the EU have recruitment and retention measures. 10 others measure recruitment only.
10. The service provider shall describe its recruitment and retention requirements including the justification of any restrictions on the recruitment of controllers, giving reasons for exclusion, including any special mandatory qualification and security requirements, and identifying the source of such provisions whether due to national legislation or otherwise.	This requirement facilitates cooperative regulation and assessment through allowing an NSA to understand any local restrictions imposed on a service provider (such as language or nationality requirements), it is therefore important in facilitating the designation of service providers for FABS.	In three States, civil providers take full control of service provision for military traffic, and may be more likely to seek to impose local conditions on designated service providers in relation to military issues, possibly including security clearance requirements.
11. The service provider shall describe its organisational structure relating to Human Resources.	This requirement supports the assessment of operations and business management of a service provider.	An impact of this and its sub-requirement will be to require further information of most service providers in describing their organisational arrangements.
11.1. this shall include an organisation chart which demonstrates the relationship between the Human Resource functions and other parts of the organisation as well as the areas of responsibility of executives and senior managers with respect to Human Resources.	Requirement provides further detail to support the NSA in its understanding of the overall process. It supports the identification of the best practice of having integrated HR management.	At least five Member States' service providers have fully integrated HR management with the rest of the organisation.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
Quality Management Systems	The following sections on quality management, safety management and reporting systems, security processes and contingency plans (requirements 12 to 21.5) all contribute to aspects of the technical and operational competence and suitability of a service provider. It is recognised that these systems and procedures may well be integrated to different degrees by different service providers.	
12. The service provider shall maintain a formal quality management system which covers all services for which it is certified	Since the Common Requirements are relevant to each specific service for which a provider will be certified, it is appropriate that a QMS should cover each relevant element.	At least fifteen service providers have a formal QMS in place to some extent in their organisation. In at least three cases the QMS is integrated with the provider's Safety Management System. Two CAAs at least require a formal QMS of their service providers. One Member State's and one Accession State's service providers have stated that they have no formal QMS in place.
12.1. the quality management system shall comply with ISO 9001:2000. Accreditation shall be demonstrated by a certificate issued by a Certification Body (or Quality Registrar) which itself has been accredited by a National Accreditation body which is signatory to the European Cooperation for Accreditation (EA) Multilateral Agreement (MLA) for Certification for Quality Systems.	Accreditation to ISO9001:2000 by a recognised Accreditation body which is signatory to the MLA facilitates a Community-wide standard by providing a recognisable and substantiated measure.	Service providers in fourteen States currently maintain a QMS to an ISO standard (including Accession States). For at least six of these providers the ISO accreditation applies to the their entire organisation; in four cases it applies to AIS only or AIS and MET. One service provider uses ISO as a tool to identify risks but is not accredited. Implementation of an accredited system may take longer than the times allowed for compliance with the Common Requirements under the service provision regulation.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
Safety Management System	In order to support and enhance the safety of aviation in Europe as well as the fair and equal provision of services and its supervision, Common Requirements relating to standard safety management systems and to the reporting of safety performance are to be implemented. The Common Requirements complement the work of EUROCONTROL and the progress of other Community legislation regarding safety occurrence reporting in civil aviation.	
13. The service provider shall ensure that it has instituted and documented measures to ensure safety. This shall include the adoption of a safety management system which is in compliance with Section 5 of ESARR 3.	ESARR 3 provides an adequate, existing standard with gives all service providers a degree of commonality. The depth of the provisions of ESARR 3 provides a satisfactory level for the Common Requirements, which if taken further may result in a restrictive and ultimately counter-productive regime. NB: reference to ICAO Annex 11 Section 2.26 is not required since ESARRs 3, 4 and 5 cover its provisions. The adoption of ESARRs into Community legislation under Article 4 of the Service Provision Regulation may affect the relevance of this requirement.	ESARR 3 should be in place in all EUROCONTROL member States by July 2003. Non-members are also focusing on compliance with the ESARRs in general. Service providers may implement integrated QMS, SMS, security and contingency plans.
14. The service provider shall ensure that it has implemented risk assessment and mitigation capabilities in compliance with Section 5 of ESARR 4, including the provision of supporting documentation for the NSA for any changes to the ATM system.	ESARR 4 does not require the service provider to support the NSA regulatory process. The adoption of ESARRs into Community legislation under Article 4 of the Service Provision Regulation may affect the relevance of this requirement. This requirement is intended to cover changes to the ATM system due to contingency plans.	ESARR 4 should be in place in all EUROCONTROL member States by January 2004. Non-members are also focusing on compliance with the ESARRs in general.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
Safety Reporting System		
15. The service provider shall adopt and implement an occurrence reporting and assessment scheme in order to analyse their safety performance and improve their safety level by devising and taking adequate action to overcome any identified weaknesses	This requirement gives Community-wide legislative weight under the Regulation to the implementation of ESARR2 which is currently being implemented by national legislators. The adoption of ESARRs into Community legislation under Article 4 of the Service Provision Regulation may affect the relevance of this and following requirements.	Progress towards adoption of ESARR 2 amongst States means that impacts are limited (see 15.3 below).
15.1. the system adopted shall ensure that occurrence reporting is performed using automated procedures as far as possible	This requirement goes beyond those of ESARR 2.	At least 8 service providers in EU States use automated reporting. Others, which have technical capability will require implementation of appropriate procedures.
15.2. the system adopted shall ensure monitoring of safety trends and development of associated corrective actions	This requirement goes beyond those of ESARR 2.	At least 12 service providers in EU States have proactive as well as reactive risk identification processes.
15.3. the system adopted shall be in compliance with section 5 of ESARR 2.	The reference to section 5 of ESARR 2 removes any obligation to adopt other parts which may contradict existing national legislation. The adoption of ESARRs into Community legislation under Article 4 of the Service Provision Regulation may affect the relevance of this requirement.	The provisions of ESARR 2 include the adoption of a non-punitive environment however, in at least one State, existing national legislation makes the non-reporting of safety occurrences illegal. This issue is being resolved at Parliament level.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
16. The service provider shall ensure that its safety occurrence reporting system takes account of the organisation of airspace for which it provides services and enables the reporting of incidents/occurrences to the appropriate NSA, as required by the reporting system, on this basis.	This requirement obliges reporting on the basis of how airspace is organised and therefore includes reporting on the basis of FABs or other instances where services are provided beyond national boundaries, or otherwise differ from current reporting bases, as such it contributes to the common management of airspace in a European UIR.	Impacts on service providers should be uniform given that the introduction of FABs will require a new approach to airspace and aspects of reporting and measuring safety in that airspace.
Security Systems and Processes	In order to contribute to the safeguarding of civil aviation and to facilitate the effective management of the organisation, a service provider must be able to demonstrate that it has taken steps to ensure the security of its facilities, its personnel and the information it uses. These requirements contribute to the ability of a service provider to ensure continuity of services it provides.	
17. The service provider shall adopt and document its systems and procedures for ensuring the security of its facilities and personnel so as to prevent unlawful interference with the provision of services. These systems shall include procedures relating to security risk assessment and mitigation, security monitoring and improvement, security reviews and surveys and lesson dissemination.	Security requirements facilitate the continuity of service provision.	The survey of States' service providers' security planning revealed few declared policies in place. Of five responses, at least one security system is integrated with the service provider's SMS. Additional service providers may implement integrated QMS, SMS, security and contingency plans.
18. The service provider shall adopt and document security systems and procedures for ensuring the security of data it receives or produces or otherwise employs, so that access to it is restricted only to those authorised	Requirement to support security of data.	Development and maintenance of a data security plan is a new ongoing requirement.
18.1. this shall include the adoption of a security management programme relating to data which is integrated with the design, manufacture, test, installation, operation and maintenance of operational systems	Security management for operational data has to be integral throughout the system life-cycle.	Extension of existing data security procedures to cover the life-cycle of operational systems.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
18.2. the security management programme shall identify the means of containing the effects of security breaches internally and externally to the system and identify recover action and mitigation procedures to prevent re-occurrence	Security management for operational data requires procedures for detection of security breaches and recovery.	Possible extension of existing data security procedures.
18.3. the security management programme shall include measures designed to detect security breaches and to alert users with appropriate security warnings.	Security management for operational data requires procedures for alerting users.	Possible extension of existing data security procedures.
19. The service provider's procedures for ensuring security of its facilities, personnel and data and information shall include coordination with the relevant civil and military authorities.	Ensures better coordination with relevant authorities.	General requirement for air navigation service provision should not impose any impact.
20. The security systems and procedures adopted by the service provider shall be consistent with any plans or programmes required by other EU or national legislation, including national civil aviation security programmes established according to Regulation 2320/2002 establishing common rules in the field of civil aviation	Avoids overlap or contradiction with other plans derived from Community legislation (in particular where National civil aviation programmes include reference to ANS).	Although Regulation 2320/2002 is directed chiefly towards airport and aircraft security it is likely that National Plans may include at least ATM facilities. Impact may therefore be to require input to States' plans so as to ensure consistency between them.
20.1. the service provider shall provide copies of its security policies and procedures to the NSA.	Facilitates supervision by placing an active obligation on the service provider. <i>This requirement may be complementary to Annex II paragraph 2 (f) of the Service Provision Regulation, conditions which may be attached to certificates.</i>	Transfer of ad-hoc information to facilitate regulatory process.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
Contingency Plans		
21. The service provider shall adopt and document formal contingency plans which detail the steps to be followed towards the maintenance of services in the case of events which result in significant degradation or interruption of services. These plans shall cover events resulting from accidents, intentional acts, unscheduled breakdown or force majeure	Existence of formal contingency plans demonstrates the service provider's managerial competence and contributes to the sustainability of its service (see also comment to requirement 14).	At least 13 EU Member States have formal plans in place; one State has no formal plan in place. However, there is no consistency in how plans are managed or applied. Service providers may implement integrated QMS, SMS, security and contingency plans.
21.1. the service provider shall detail organisational responsibility for the plans	Together with requirement 21.2, this encourages the application of best practices of distribution of responsibility throughout the organisation with a dedicated management oversight.	Clear identification of key personnel to facilitate communication and coordination will be required in many States.
21.2. the service provider shall ensure that plans are communicated throughout its management	To ensure relevant departments have clear understanding of roles and responsibilities. The extent of the dissemination of contingency plans may be affected by the level of security clearance of individual personnel.	Internal communication may require workshops for key personnel.
21.3. the contingency plans shall consider the possible impacts on neighbouring areas of such events, and be coordinated with all relevant local and regional authorities, service providers and users, as appropriate	A Common Requirement with more detailed requirements in terms of subjects of coordination may not be enforceable since the appropriate parties will vary from State to State.	At least 7 of the 13 existing Member States' plans are coordinated with external parties but vary in scope. One impact will be to require several service providers to include their users in the planning process.
21.4. the contingency plans shall detail internal and external coordination actions toward the recovery of services	Requirement facilitates coordinated recovery.	Allocation of responsibility for individual actions.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
21.5. the service provider shall provide the relevant NSAs with copies of its contingency plans accompanied by a description of procedures for their communication through its organisation and with other relevant parties.	Contingency plans are a constant requirement, have no particular timescales and are therefore appropriately part of general requirements not business or annual plans or report. Facilitates supervision by putting a positive requirement on service provider. <i>This requirement may be complementary to Annex II paragraph 2 (f) of the Service Provision Regulation, conditions which may be attached to certificates.</i>	Those States without plans will have to have to develop and communicate appropriate material. Those with plans will require some amendment to meet Common Requirement 21. This Requirement (21.5) also supports the supervisory process through the transfer of ad hoc information.
Operational Data		
22. The service provider shall ensure that it has in place suitable procedures and processes to enable the exchange of data with other services providers and other organisations as detailed in plans developed through Community legislation.	Requirement supports the interoperability regulation, and is a basic competency requirement for any service provider.	
Consultation with Users		
23. The service provider shall consult regularly with stakeholders, including its users, to ensure that it is providing satisfactory services	This Common Requirement, together with 24, is part of the overall drive towards effective and efficient provision of services. It contributes to the identification of problems and the clarity of mission of a service provider, which in turn drives improved processes. The Annual Report shall include information on the Service Provider's consultation (see also requirement 71.6).	A small majority of service providers have formal processes in place for customer involvement in service definition and most have formalised their customer relationships.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
23.1. providers of Air Traffic Services and Meteorological services shall solicit the opinions, at least twice each year, of a cross section of its users including the top three representatives of commercial aviation, measured by aircraft movements, and general aviation.	Supported by requirement 71.6, this requirement ensures regular, verifiable consultation is undertaken, supporting the service provider's range of users.	Extension of consultation mechanisms for some service providers.
24. The service provider shall adopt and document procedures for responding to complaints from users.	This is required to allow transparent and consistent procedures, leading to best practice implementation.	At least two States' service providers currently have no formal process in place to capture customer complaints.
Consultation with other service providers		
25. The service provider shall regularly report on consultations with all relevant service providers in neighbouring airspace to ensure the smooth provision of services, including circumstances where airspace is subject to vertical separation.	This requirement ensures further cooperation between service providers.	Formalisation of on-going consultation process between service providers.
Consultation with the NSA		
26. The service provider shall, on request of the NSA, provide all relevant information to enable the NSA to assess compliance against these Common Requirements.	Basic requirement which supports compliance with the Common Requirements; enables assessment on an on-going basis together with regular provision of information to NSA through Business Plans, Annual Plans and Annual Reports. <i>This requirement may be complementary to Annex II paragraph 2 (f) of the Service Provision Regulation, conditions which may be attached to certificates.</i>	Transfer of ad-hoc information to facilitate regulatory process.
27. Where the service provider provides reports or information to the NSA it shall obtain the approval of the relevant NSA regarding the language in which that information is provided.	Requirement to facilitate communication and supervision between NSAs and service providers in cases of delegated airspace and Functional Airspace Blocks.	Some reporting may be in a common language where more than one NSA is concerned, e.g. service provision for Functional Airspace Blocks.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
Civil/Military Cooperation		
28. The service provider shall ensure that it has written agreements in place with its relevant civil or military counter-part providers in respect of the management of airspace for which it provides services.	This Common Requirement obliges service providers to address the specific arrangements between civil and military organisations – it puts an obligation on the service provider as well as that on the State under Article 10 of the Service Provision, relations with military authorities.	Impacts on the current situation in Europe will vary depending on the level of integration of civil and military service provision. At the institutional level in all cases there is at least formal cooperation between the relevant ministries. At an infrastructure level in at least two States there is complete separation of infrastructure and services. Currently at least seven States (including Accession States) have permanent allocation of some airspace to military traffic, this circumstance will necessarily be impacted by the development of the concept of FUA.
28.1. the service provider shall coordinate plans for activities in times of crisis and war, with its relevant civil and military counterparts and authorities.	Requirement aiming at the most effective use of the airspace also for civil aviation in times of crisis and war.	Plans or letter of agreement already exist for some service providers.
29. The service provider shall coordinate with its civil or military counterparts to facilitate the implementation of the concept of Flexible Use of Airspace, including in any Functional Airspace Blocks.	The development of the concept of Flexible Use of Airspace is also a goal of the SES and mandated under the Airspace Regulation (see requirements 30.1 and 71.8).	Formalisation of role for service provider under FUA.
Expert Support to the State		
30. The service provider shall make available to the relevant NSA appropriate materials and expertise to allow the State to discharge its national and international obligations and legal or regulatory requirements, as agreed with the NSA	This advice and expertise cannot be further specified since requirements of the State will vary considerably from State to State and over time.	Depending on the development of functional airspace blocks, one impact may be that a <i>designated</i> service provider which originates, or has its main operations/place of business in one State, must provide advice to another State.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
30.1. this shall include information in support of any reports required by the European Commission in relation to the concept of the Flexible Use of Airspace.	Supports the State in its requirement to report to the Commission on the implementation of FUA (see 71.8).	Transfer of information and status reporting.
Obligation to Alert NSA		
31. The service provider shall bring to the attention of the NSA any issues or events which are likely to impact materially on its ability to maintain its technical and operational competence so as to ensure the safe provision of services.	Basic requirement to inform and consult with NSA in order to protect the technical competence of a service provider. This is a continuous requirement as opposed to the presentation of regular plans or reports.	

FINANCIAL STRENGTH	In order that Member States can be confident that the services provided will not be adversely affected by a service provider's financial position, it must be able to demonstrate its financial security. A service provider must ensure that its internal financial arrangements do not prevent or distort competition in any existing or emerging market for the provision of ANS. In addition, it must be able to show that it has developed and documented plans for investment and management of the organisation. Common supervision of service providers may be enhanced through the application of Article 11 of the service provision regulation which requires the use of International Accounting Standards for the reporting of accounts.	
Ability to Meet Financial Obligations		
32. The service provider shall be able to meet its financial obligations, such as the fixed and variable costs of operation or capital investment costs, in order to allow it to provide its services.	This basic requirement ensures that the continued operation of a service provider must not be jeopardised by its financial position; it is supported by the Common Requirements relating to business plans and reports (see 69 onwards).	The extent of financial reporting requirements varies depending on the nature of the service provider and the extent of its activities.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
33. The service provider shall be able to demonstrate to the NSA at any time, its ability to meet its financial obligations through the provision of plans and accounts.	This requirement, and that of 34, is designed to assist supervisory inspection. It is supported by the Requirements for provision of the Business Plan and Annual Report .	To be met through provision of Business Plan and Annual Report.
34. The service provider shall make available relevant staff to the NSA in any investigation of the service provider's financial position.	This requirement is simply designed to ensure that the service provider allows access and makes available the relevant personnel to the NSA.	Impacts are likely to be limited to issues of practical access and will depend on the degree of separation between regulator and service provider.
Management of Assets		
35. The service provider shall maintain a register which identifies all relevant assets (i.e. assets which form part of the operational system by which the service provider provides its services)	This basic requirement provides the NSA with evidence of sound financial and operations management. Its application contributes to the development of the European system as a whole.	The impact of this requirement and its sub-requirement is expected in many cases to result in the formalisation of existing asset registers.
35.1. this register shall reconcile the relevant assets with the service provider's financial reports and plans including its balance sheet.	This additional requirement facilitates financial management and assessment.	Impacts are expected to be influenced by the degree of commercialisation of a service provider.
36. The service provider shall not dispose of relevant assets without the prior agreement of the NSA where this has a material effect on their ability to provide their services.	This requirement, and that of 37, contributes to the integrity of the European network and contributes to continuity of service by protecting necessary infrastructure .	Formalisation of communication which exists between State and service providers, or representatives of such.
37. The service provider shall not allow its relevant assets to become subject to any claim from third parties, such as through a mortgage or other security, without prior agreement of the relevant NSA.	This requirement ensures that the NSA has oversight of the ownership and sustainability of the asset base used to provide services and is intended to ensure that a service provider's does not relinquish control of its relevant assets where doing so may lead to an inability of to provide its services.	Impacts will depend on the financial position and management of a service provider.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
Non-ANS Activities		
38. The service provider shall not conduct any other type of business outside the provision of air navigation services <u>where this may prejudice its ability to provide the services for which it has been certified</u> .	Non-ANS activities are <i>not</i> outlawed by this requirement: service providers are free to conduct other commercial activities; the requirement is directed towards preventing a service provider from risking its financial security and therefore its sustainability unnecessarily through commercial ventures.	Service providers in 12 States (including Accession States) have stated that they conduct non-ANS related activities. These range from consultancy and training to airport parking. The most common activities are training external staff (9 providers) and consultancy (8 providers).
39. The service provider shall inform the NSA of involvement with any commercial activities outside the field of its certified services.	Supports intent of requirement 38 and facilitates inspection by putting obligation on service provider to consult with the NSA. <i>This requirement may be complementary to Annex II paragraph 2 (f) of the Service Provision Regulation, conditions which may be attached to certificates.</i>	Declaration of non-ANS activities to avoid any conflicts of interest.
Obligation to Alert NSA		
40. The service provider shall bring to the attention of the NSA any issues or events which are likely to impact materially on its ability to meet its financial obligations as soon as it becomes aware of them.	Basic requirement to inform and consult with NSA in order to protect the financial strength of a service provider. This is a continuous requirement as opposed to the presentation of regular plans or reports.	

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
OWNERSHIP AND ORGANISATIONAL STRUCTURE	In order that any conflict of interest or unfair competition may be identified by an NSA, the legal status and ownership of service providers, along with any links, commercial or otherwise with other organisations must be made clear. Although in some cases, the term “ownership”, may not be applicable, such as instances where a service provider is a government department, the same level of understanding as with any other service provider is required with regard to its institutional status. A service provider should also be able to demonstrate that it has an organisational structure which enables it to deliver the services required and to sustain that ability.	
Ownership		
41. The service provider shall provide the NSA with a description of its legal status.	Legal status can vary from service provider to service provider and a NSA will require a clear understanding to determine any possible impacts.	Transparent declaration of legal status to assist NSA to perform its duties
42. Where the legal status of a service provider allows it to be described as being owned or partly owned by another body, including a Member State, the nature or degree of ownership shall be made explicit	The term “ownership” implies no requirement for, or assumptions relating to public or private ownership of a service provider.	In the 27 States, 4 service providers are government departments, 2 government agencies, 6 state enterprises, 13 corporatised entities and one is (part) privatised.
42.1. this shall include the proportions of shares owned or changes of government department responsibility.	Required to understand further ownership impacts.	
43. A provider of <u>Air Traffic Services</u> shall be owned and substantially controlled by Community government(s) or individuals or undertakings of Community nationality.	This requirement ensures that the ultimate control over the User/Service Providers interface remains within the competence of Member State’s governments and under Community law.	ATS providers will remain substantially within Community ownership, but providers of support services may exist whose ownership is outside the Community.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
44. The service provider shall inform the NSA of any changes to its ownership or to its legal status.	Requirement facilitates supervision by putting a positive requirement on service provider to notify the NSA of any applicable changes. <i>This requirement may be complementary to Annex II paragraph 2 (f) of the Service Provision Regulation, conditions which may be attached to certificates</i>	Transfer of ad-hoc information to facilitate regulatory process.
Links with other Organisations		
45. The service provider shall not maintain connections with other organisations which result in competition being unfairly restricted (under the meaning of Article 81(1) of the EC Treaty) in any market for the provision of air navigation services.	Recognises that while relations between service providers in the future development of the European system can be beneficial, Community competition law will be applicable.	Restriction on service providers behaving in an anti-competitive manner to, inter alia, restrict the unbundling or bundling of services that may result on more effective and efficient organisation of the 'system as a whole'.
46. The service provider shall describe any connections with other organisations involved in air navigation service provision.	This requirement includes links to NSAs where they are part of the same overall organisation.	At least ten States have organisationally separate regulation from service provision in the safety domain. Of these at least seven have separation of other regulatory functions. The level of separation is not necessarily different among Accession States as among EU Members. In one Member State, where all ANS functions are performed by one government body, no regulatory functions are defined. Links with other service providers vary in depth and scope across States.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
47. The service provider shall describe any links with other organisations other than those involved in air navigation service provision, including commercial activities in which they are engaged either directly or through related undertakings.	Together with requirement 46, this facilitates inspection by providing information which can be used by the NSA in its assessment of compliance with requirement 45; it supports financial supervision in general and requirements 38 and 39 in particular.	General requirement to assess sustainability of service provision.
Organisational Structure		
48. The service provider shall maintain an organisational structure which allows it to deliver its services safely, effectively and efficiently.	Basic requirement facilitating goals of the Single European Sky.	General requirement for air navigation service provision should not impact on existing service providers.
49. The service provider shall describe its organisational structure	This and the following sub-requirements facilitate assessment of the managerial competence of the service provider.	Basic information transfer impacts any service provider, but in a minimal way.
49.1. this description shall include the production of an organisation chart which details the management reporting structure and the areas of responsibility of executives and senior managers	Ensures provision of material often found in a service provider's annual report.	Service providers generally already produce such a chart, often included in their annual report.
49.2. the description of organisational structure shall also describe the relationship between different parts of the organisation including how functional and organisational units relate to each of the individual services provided, this shall include the roles, responsibilities and reporting lines of accountable managers for safety related functions.	This requirement adds detail to the previous requirement and ensures that the structure is a meaningful description of the organisation for the services provided (see also requirement 11).	The use of this chart in supervision is a new step which will require more detail from most service providers.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
50. The service provider shall be organised in such a way that it can accommodate relevant infrastructure and technology developments resulting from plans developed through Community legislation.	This requirement contributes to the overall development of the European network and ensures that providers can accommodate international developments; it supports the interoperability regulation. The ECIP currently provides a reference for service provider infrastructure plans, from which NSAs can assess the validity of any individual scheme.	Impacts on service providers in terms of information provision to NSAs are likely to be minimal due to their involvement with EUROCONTROL.
51. The service provider shall inform the NSA of any significant changes to its organisational structure.	Facilitates supervisory activity by ensuring positive communication with NSA. This is an on-going requirement as opposed to information to be provided in regular plans and reports. <i>This requirement may be complementary to Annex II paragraph 2 (f) of the Service Provision Regulation, conditions which may be attached to certificates</i>	Transfer of ad-hoc information to facilitate supervisory process.

ACCESS TO SERVICES	Common Requirements relating to access to services are established in order that NSAs across the Community can be confident that the services provided by a service provider are provided openly and transparently to all users. These requirements complement the requirements relating to technical and operational competence and reporting systems which cover quality of services NB: the Common Requirement Guidelines from which the following requirements are derived is titled "Quality of Services".	
Open and Transparent Provision of Services		
52. The service provider shall provide its services in an open and transparent manner in accordance with the principles of ICAO and the provisions of Community Treaties.	General obligation of service providers.	Should have no additional impact on service providers.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
53. The service provider shall ensure that it has a documented policy to provide services in such an open and transparent manner.	This requirement facilitates supervision through the provision of information to the NSA.	Such documentation should be consistent with the operations manual.
54. As far as is reasonably practicable the service provider shall make available its services to all users in its area of responsibility in a non-discriminatory manner, in accordance with the principles established by ICAO.	A more specific requirement, which creates an obligation to provide services to any user requesting them in the airspace for which a provider is responsible could lead to unreasonable demands for new infrastructure or for service access being made which are detrimental to safety.	General requirement for air navigation service provision should not impose any impact and ensure the same provisions are applied to services relevant to FABs.
55. The service provider shall not unduly discriminate against or give preferential treatment to any user or class of users in respect of the terms on which services are provided, to the extent that such terms have or are intended or are likely to have the effect of preventing, restricting or distorting competition in any market (under the meaning of Article 81(1) of the EC Treaty.	This requirement allows the development of a more sophisticated market since more commercial ANS activities or contractual relationships between users and providers are enabled. A more restrictive requirement may prevent such developments. As in other markets, unfair competition is prevented by reference to the provisions of the EC treaty.	To ensure services continue to be provided on a non-discriminatory basis with the development of possible contractual relationships between users and service providers.
56. The service provider shall ensure that restrictions on access to services on the grounds of defence and security reasons (as set out in Article 11 of the framework Regulation XXX/XX ¹¹) are proportionate.	This requirement supports the goals of the Single Sky through balancing national security requirements against the needs of civil aviation, and thus contributes to civil/military cooperation. A more specific requirement detailing how this shall be ensured is prevented by the multitude of possible circumstances where States may invoke defence or security criteria in order to restrict access.	Encourages civil military cooperation on a practicable basis.

¹¹ Common Position 47/2002

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
LIABILITY AND INSURANCE	The development of Functional Airspace Blocks is expected to complicate current arrangements for the allocation of liability in ATM, which are themselves not explicit, where service providers do so across National boundaries. In order to ensure that the relative positions of parties involved in relation to liability are clear, and so that an NSA can be confident that a service provider will not be threatened by losses incurred through its liability for damages, a service provider must be able to demonstrate that it has arrangements in place to cover actual or potential liabilities through insurance or other arrangements.	
Obligation to Cover Liabilities		
57. A provider of Air Traffic Services shall ensure that it has in place arrangements to cover losses for damages arising from liabilities to Member States or to third parties (airlines, passengers, users, etc.) which occur due to its action or inaction	The requirements relating to liability must take account of the legal status of service providers and no one method can therefore be prescribed. Minimum amounts of liability for which insurance is to be provided cannot be specified since the risk to providers is likely to vary depending on many factors. Therefore, the amount to be covered will vary and this in turn may affect the price of cover. Setting a minimum value may thus affect the price of insurance unnecessarily, possibly leading to increased costs to providers or to them contracting for insufficient cover. See requirement 60 below.	Insurance arrangements are correlated to legal status of service providers: where commercialisation is more advanced, service providers are more likely to have purchased insurance policies, and where service providers are more closely aligned to State management the State tends to provide insurance. Intermediate arrangements exist where, in at least two States, insurance is provided through State-run schemes open only to State Enterprises; in at least two other cases commercial insurance is purchased and the State provides cover beyond a particular value. There is no standard amount for insurance cover. It may be difficult to reach commonality on this area due to the variation in risks and because detail is in some cases commercially sensitive and thus confidential to the service provider and its supplier. See requirement 60 below.

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
57.1. a provider of Air Traffic Services shall provide a copy of its insurance policy or documented details of other arrangements to the NSA.	Facilitates supervision by placing active obligation on the service provider. <i>This requirement may be complementary to Annex II paragraph 2 (f) of the Service Provision Regulation, conditions which may be attached to certificates.</i>	Transfer of information to validate compliance with State obligations.
58. A provider of services other than Air Traffic Services shall ensure that it has in place arrangements to cover losses arising from liabilities to providers of Air Traffic Services or to Member States or to third parties (airlines, passengers, users, etc.) which occur due to their action or inaction.	The requirement for these providers is separated from ATS providers in recognition of the chain of liability which may exist where services have been unbundled.	Ensure providers of other services complete the chain of liability for providers of Air Traffic Services.
59. This cover for liabilities shall include damages to Member States or third parties relating to personal injury or death, property and consequential damage and for damages arising from a material interruption to the service provided.	The requirement to account for interruption to service provided provides reassurance to users that service will be maintained.	The impact of such an additional requirement may be to increase costs of existing commercial policies (due to the commercial nature such arrangements further detail if not readily available).
60. The method employed to provide cover for liabilities shall be appropriate to the potential losses in question, taking into account the legal status of the service provider. This may include the use of a commercial insurance policy or the underwriting of liabilities by means of a State guarantee or another suitable mechanism.	For clarification.	See requirement 57.
61. Providers of services who use the infrastructure of another provider shall ensure that they have concluded agreements relating to this use.	This requirement is particularly applicable where services are provided across borders.	Development of letters of agreement will be required, where not already concluded, including applications of Functional Airspace Blocks.
61.1. They shall demonstrate to the NSA that the allocation of liability between the parties is clear and cover is provided according to the principles above.		

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
SPECIFIC REQUIREMENTS	Specific requirements further define individual services in the context of international provisions and agreements	Use of the term “consistent” in the following requirements is intended to maintain the flexibility to file exemptions but address the adoption of the relevant ICAO provisions to the maximum extent possible.
Air Traffic Services		
62. Providers of Air Traffic Services shall define working methods and operating procedures consistent with ICAO Annex 11 Air Traffic Services, Annex 2 Rules of the Air, Doc 4444 PANS-ATM and Doc 7030/4 EUR Regional Supplementary Procedures.		
Meteorological Services		
63. Providers of Meteorological Services shall define working methods and operating practices consistent with ICAO Annex 3 Meteorological Service for International Air Navigation and Doc 8896 Manual of Aeronautical Practice.		
Aeronautical Information Services		
64. Providers of Aeronautical Information Services shall define working methods and operating practices consistent with ICAO Annex 15 Aeronautical Information Services, Annex 3 Meteorological Service for International Air Navigation, Annex 4 Aeronautical Charts, Doc 8400 PANS-C, Doc 8126 Aeronautical Information Services Manual and Doc 8697 Aeronautical Chart Manual.		

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
Communications/Navigation/Surveillance		
65. Providers of Communication, Navigation or Surveillance Services shall define working methods and operating procedures consistent with ICAO Annex 10 Aeronautical Telecommunications.		
Information Exchange		
66. The service provider shall satisfy performance requirements and guarantee interconnectivity as provided for in Regulation (EC) No XXX/XX [Interoperability]. These requirements shall be specified in terms of minimum required performance for specified classes of users.		
67. The service provider shall ensure that information and data is available for operations, prior to and during flights, in a suitable form for airspace users and other service providers, consistent with ICAO Annex 5 Units of Measurement to be Used in Air and Ground Operations, Annex 10 Aeronautical Telecommunications, Annex 11 Air Traffic Services, Annex 14 Aerodromes, Annex 17 Security and Doc 7554 Air Navigation Plan European Region.		
68. The service provider shall use only operational information and data from other certified providers, unless otherwise agreed by the NSA through justification of source and quality.		

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
BUSINESS PLAN		
General	The business plan is the first of three key tools which helps demonstrate that a service provider is in compliance with the Common Requirements; its contents also support many of the of the General and Specific Requirements above.	
69. The service provider shall provide the NSA with a business plan which covers a minimum period of five years. This plan shall set out the overall aims and goals of the service provider and its strategy towards achieving them.	A minimum five year period is sufficiently long to enable the exposition of a strategy but short enough to be flexible. This requirement does not therefore preclude plans for a period longer than 5 years (see 69.5).	Of service providers in Member States 9 currently have business plans covering a five year period or which are for longer periods but are updated every five years.
69.1. The service provider shall obtain the approval of the NSA as to the form, scope and level of detail to be provided for each element of the business plan.	Requirement facilitates supervision and assessment.	
69.2. The business plan shall contain details of the operations, systems and processes of the service provider and how it will ensure the safe, efficient and effective provision of services	Requirement provides information to NSA to demonstrate technical competence and suitability requirements (see Common Requirement 1 and following).	
69.2.1. the business plan shall describe how such plans have been translated into financial requirements	Requirement facilitates supervision.	
69.2.2. at the earliest opportunity, the service provider shall bring to the attention of the NSA any issues or events which are likely to impact materially on its ability to achieve the aims of its business plan.	This general requirement facilitates supervision by its active obligation on the service provider. It is a continuous requirement but is self-evidently directly related to the contents of the business plan.	
69.3. The business plan shall contain information which demonstrates the financial sustainability of the service provider's activities.	Requirement provides information to NSA to demonstrate financial strength requirements (see requirement 32 and following).	

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
69.4. The business plan shall not conflict with other relevant plans developed through Community legislation.	The ECIP currently provides a reference for service provider plans, through which inspectors can assess the validity of any individual scheme.	
69.5. The business plan shall be consistent with any overall longer term plan of the service provider.	Ensures consistency between successive business plans.	At least two providers have strategic plans extending over 15 years.
69.6. The business plan shall cover forecasts of the service provider's financial results and all relevant financial measures relating to expected income and expenditure including user charges	This is the main requirement to provide information to support financial strength. It also contributes to operational competence.	
69.6.1. the relevant financial measures shall be determined in conjunction with the NSA, taking into account the nature and legal status of the service provider, so that they cover all relevant elements of the service provider's financial plans.	Details as to the exact financial measures cannot be defined more precisely without reference to the individual service providers' legal status, scope of services and commercial activities.	
69.7. The business plan shall detail any capital investments and the nature and source of the financing to support these.	See comments on 69.6 and 69.6.1.	
69.8. The business plan shall detail the service provider's expected operating costs and the source of the financing to support these.	See comments on 69.6 and 69.6.1.	
Management of Assets		
69.9. The business plan shall include details as to how the service provider will develop and maintain its relevant assets so that it can continue to provide the services effectively and efficiently.	Inclusion supports general requirements and for technical competence and financial strength.	

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
69.10. The business plan shall detail plans for the management of any implementation of new infrastructure or other developments and how they will contribute to providing the necessary capacity and safety of the service.	Requirement supports competence of provider in implementing new technologies (see requirement 69.12).	
69.11. The business plan shall indicate the ability of the service provider to meet any expected costs associated with new infrastructure.	To ensure sustainable operation of investments from financial perspectives.	
69.12. The business plan shall demonstrate the service provider's compliance with relevant international provisions for the development of infrastructure or other technology, such as those arising from the ICAO and other regional agreements enforced through Community legislation, and shall include any obligations deriving from any arrangements relating to regional cooperative planning initiatives.	General compliance validation of business plan with international obligations.	
Investment Strategies		
69.13. The business plan shall include information on any planned investments for the provision of air navigation services by the service provider, including those in other organisations or undertakings, describing the nature and strategic intent of these investments.	The plan supports the requirements for financial strength and for organisational structure (see requirement 45). Information on any other investments which may affect the ability of the service provider to provide services is covered by requirement 47).	
Human Resources		
69.14. The business plan shall include all relevant financial information relating to Human Resources in order to demonstrate to the NSA that the service provider has the financial capability to maintain and develop sufficient personnel so as to provide its services.	Supports General requirements related to Human resources (see 9, 10 and 11 above).	

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
69.15. The business plan shall include information on the service provider's policy and procedures relating to Human Resources including those directed towards recruitment, training and consultation with staff	Supports General requirements related to Human Resources (see 9, 10 and 11 above).	
69.15.1. this information shall demonstrate to the NSA that the service provider is able to recruit and retain sufficient operational Human Resources for the provision of services to the performance levels to be agreed in the Business and Annual Plans.	This requirement addresses the specific requirement to ensure that quality of services is not adversely affected through lack of ATCOs.	
Supervisory and Regulatory Costs		
69.16. Where the service provider supports the costs of its supervision or regulation, the business plan shall include information relating to the amount of such costs and the methodology by which they are calculated.	To ensure transparency and impact determination of any costs associated with the supervisory and regulatory process.	
69.17. The business plan shall also detail the expected costs to the service provider of providing support to the State.	To ensure transparency and impact determination of any costs associated with additional support required from the State.	

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
ANNUAL PLAN	The annual plan is the second key tool which helps demonstrate that a service provider is in compliance with the Common Requirements, its contents also support many of the General and Specific Requirements above. It provides an annual update to longer term plans which otherwise may be less specific due to their extended timescales.	
General		
70. The service provider shall provide the NSA with an annual plan which demonstrates its ability to provide services safely, effectively and efficiently and which describes any changes to the business plan. It shall include, but not be restricted to, capacity, service levels and financial arrangements		At least twelve States currently have an annual business plan or update their longer term business plans annually.
70.1. the service provider shall obtain the approval of the NSA as to the form, scope and level of detail to be provided for each element of the Annual Plan.	Requirement facilitates supervision.	
Capacity		
70.2. The annual plan shall demonstrate that the service provider has sufficient capacity to provide services effectively and efficiently, based on local and regional forecasts	Requirement to ensure services are planned in to meet demand.	EUROCONTROL members currently produce capacity plans as contribution to LCIP.
70.2.1. the annual plan shall include a statement which sets out the nature of the infrastructure which is available to users and explains the conditions for access to such infrastructure such as infrastructure capacity.	This requirement will assist in the identification of areas of congested infrastructure, facilitating improved efficiency in the provision of services	

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
70.3. The annual plan shall describe the methodology, tools and inputs in determining capacity, including the basis of forecasts employed, as well as any underlying assumptions regarding airspace	This requirement provides a level of detail to support the capacity planning.	
70.3.1. the service provider shall demonstrate to the NSA that it has consulted with users representative of the current and future need for services in the development of the plan.		
Quality of Services		
70.4. The annual plan shall include details of the level of service delivery that the service provider intends to meet (and which must be agreed with the NSA), such as the expected level of delays to flights incurred as a result of services provided.	Commonality of this requirement cannot be further detailed without specifying levels of performance to be met, which are dependent on individual airspace arrangements, traffic volumes and the services being provided. These are requirements better specified as local conditions for designation of a provider. For safety, a qualitative approach to target setting may be pursued.	
70.4.1. the service provider shall demonstrate the methodology and inputs employed in the calculation of the planned level of service delivery.	Requirement facilitates supervision by ensuring that the planned service level is justified.	
70.5. The service provider shall adopt and describe in the annual plan indicators of performance against which the quality of service may be reasonably assessed. This shall include at least those developed by EUROCONTROL's PRC or SRC and subsequently agreed by the Provisional Council.	This requirement avoids repeating work undertaken through EUROCONTROL; it ensures commonality of measures without ruling out the adoption of other improved or specific measures.	

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
Financial Plan		
70.6. The annual plan shall also set out the service provider's expected short-term financial position and include progress towards the business plan as well as any material changes to or impacts on this plan.	To ensure consistency and impact determination with the business plan.	The extent of annual financial planning can be correlated to the legal status of a service provider. Government departments are more likely to restrict their planning to an annual budget (as is the case with at least three service providers).
70.7. The annual plan should include all financial measures included in any element of the five year plan as well as any additional measures appropriate to the shorter timescale of the plan	This requirement tightens the obligation to provide information. As with the business plan, the specific details will depend on legal status and the scope of service provider activities.	
70.7.1. additional measures, if any, should be determined in conjunction with the NSA, taking into account the nature and legal status of the service provider.	Provides further clarification.	
70.8. The annual plan shall include information, in line with that in the business plan, on the management of relevant assets and of investments of the service provider as appropriate to the shorter timescale of the annual plan.	Requirement ensures consistency between information provided.	
Supervision and Regulatory Costs		
70.9. Where the service provider supports the costs of its supervision or regulation the annual plan shall include information, relating to the expected value of such costs and the methodology by which they are calculated.	This requirement allows the NSA to assess the costs of supervision and regulation across service providers. This is particularly important as Functional Airspace Blocks develop across national boundaries.	

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
70.10. The annual plan shall also detail the expected costs to the service provider of providing support to the State.	This requirement allows the NSA to assess the additional costs of supporting the State across service providers. This is particularly important as functional blocks develop across national boundaries.	

ANNUAL REPORT	The annual report is the third key tool in the provision of information to the NSA to help allow assessment of compliance with the Common Requirements.	
General		
71. The service provider shall provide an annual report of its activities to the NSA. This report shall cover its financial results, including those relating to user charges, operational performance and any other significant activities and developments.		At least 17 States' service providers publish an annual report, but at least one Member State's provider does not. The level of detail is broadly correlated to the extent of commercialisation.
71.1. the service provider shall obtain the approval of the NSA as to the form, scope and level of detail to be provided for each element of the annual report.	Requirement facilitates supervision.	
Capacity		
71.2. the Annual Report shall include a transparent effectiveness assessment of the capacity generated during delivery of the air navigation services	Requirement to enable assessment of effectiveness of annual capacity plans.	

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
Quality of Services		
71.3. The annual report shall include the performance of the service provider, reconciling actual performance against the annual plan and using indicators of performance against which the quality of service may be reasonably assessed, including at least those developed by EUROCONTROL's PRC or SRC and subsequently agreed by the Provisional Council.	Allows review of key performance targets against actual performance.	
71.4. The annual report shall include developments in operations and infrastructure developments.	Permits review of operational and technical developments against plans.	
71.5. The annual report shall identify any material differences from information in the LCIP.	Requirement ensures that confusion between processes is reduced.	
71.6. The annual report shall include information on the service provider's consultation with its users. This consultation shall be demonstrated, at the minimum, by a record of the opinions of a cross-section of the service provider's users, to be sought at least twice-yearly, including the top three users measured by number of aircraft movements.	Permits a review of the consultation with users and while contributing to best practice (see requirements 23 and 23.1).	
71.7. The annual report shall include information on the service provider's consultation with other civil and/or military service providers and, for civil providers, with the institutions responsible for military air traffic	Permits review of civil/military cooperation (see requirement 28).	
71.7.1. this consultation shall be demonstrated, at the minimum, by a record of meetings between representatives of the various parties which shall be held at least twice-yearly.		

COMMON REQUIREMENT	COMMENTS	SERVICE PROVIDER IMPACT
71.8. The annual report shall include information on any progress towards the concept of the Flexible use of Airspace.	Permits review of FUA where it is being introduced (see 29).	
Financial Results		
71.9. The annual report shall set out for the NSA the financial position of the organisation. It shall include the results of all appropriate financial measures contained in the business plan and annual plan and any investment activities	Permits review of financial position in comparison with plans.	At least nine States' service providers include detailed financial measures in their annual report including (two Accession states). In general, more commercialised providers publish greater financial detail.
71.9.1. the service provider shall disclose in its annual report to the NSA any cross-subsidy (in the form of monies or otherwise) between any separate business or part of a separate business of the service provider's or any other related bodies.	Cross subsidy is explicitly permitted in Article 14 of the service provision regulation. However, this requirement contributes to transparency and therefore to a level playing field. Unfair competition in this area is of course still addressed by other Community legislation under Article 81(1) of the EC Treaty. Information on cross-subsidy will be useful where FABs are developed.	
Supervision and Regulatory Costs		
71.10. Where the service provider supports the costs of its supervision and regulation, the annual report shall detail the nature and amount of these costs.	Review of costs incurred through regulation and supervision.	
71.11. The annual report shall also detail the costs incurred by the service provider in providing support to the State.	Review of additional costs incurred through supporting the State.	

5 CERTIFICATION ISSUES FOR NSAS

5.1 INTRODUCTION

The outputs of the first phase of the Study show that the introduction of any Common Requirements at a Community level is likely to place significant additional responsibility on many existing organisations across the Community. The Common Requirements have been drafted in order to contribute to not only better communication and cooperation between service providers and between service providers and NSAs, but also between NSAs.

The need for cooperation at the supervisory level is made more pressing by the development of FABs since they will result in a Member State designating a service provider which has been certified by another NSA.

The following guidance has been based on:

- Analysis of the impacts of Common Requirements
- Consultation with stakeholders on existing issues facing regulators
- Inspection processes followed by Accreditation Bodies working to European Standards
- Study team experience of organisational development for representative bodies.

This material serves as information for Member States during the establishment of NSAs but is not based on any legal obligations arising from the legislative package. Decisions on how to establish NSAs are left to individual States according to the subsidiarity principle. The following material should therefore be treated as guidance supporting the development and implementation of best practices, while allowing different institutional and operational environments to be duly considered and applied across Member States.

5.2 CONTINUOUS NATURE OF SUPERVISION

The supervisory function which results in certification has to be able to evaluate the individual parts of an organisation and assess the integration of these parts. As described above (Section 3.2), assessment is an active process: the surveys and inspections are tools for ensuring supervision is performed in a systematic manner and involve the appropriate level of direct assessment. The NSA should therefore agree with the service provider a plan for the frequency of inspection and establish a calendar for audits.

On-going oversight should be conducted as a matter of routine. Compliance with the Common Requirements will thus be determined through the provision of information and by first-hand verification by the NSA. Inspections and surveys should be conducted in sufficient depth and scope to satisfy the NSA that compliance has been met.

An NSA may be expected to conduct a full review of a service provider's compliance with the Common Requirements when the service provider is first certified.

At any frequency, some supervisory activities will need to be detailed and exhaustive, especially those related to safety assessment. However, it may be appropriate that

compliance with some other elements of the Common Requirements can be assessed at less intensive levels. Although it is appropriate for a comprehensive assessment of all Common Requirements to be performed at the time of the business plan's production, which may be considered to be a "full assessment", some requirements assessed at the time of the annual plan may not require the same detailed inspection. For example, where long term infrastructure plans are in place, a full review of the details of such plans may not be necessary each year as long as an inspector is satisfied on the initial inspection that progress is maintained and compliance with the requirement is assured. However, the NSA must be able to respond flexibly enough to be able to conduct a full assessment whenever concerns are raised during a secondary inspection.

It is important that the frequency of inspection is established as soon as possible in order to allow an NSA to assess that a service provider is maintaining compliance with the Common Requirements. Regardless of the frequency agreed, the NSA should retain the capability of inspection at any time, as is enabled through the Common Requirements.

Judgements as to the appropriate level of inspection can only be made following practical investigation and interviews. The extent to which first-hand verification is needed and the basis for such activity will vary depending on the services being assessed and the nature and capability of the service provider in question. Furthermore, this approach is only likely to be practical when NSAs and service providers have become familiar with the certification process and have experienced several inspections and assessments.

5.3 SUPPORT TO THE NSA IN CERTIFICATION

The variety of functions required of the NSA requires not only sufficient numbers of staff but also those of particular expertise given the specialist nature of the industry.

Although each State has to designate an NSA to ensure compliance with the Common Requirements, it does not follow from this that each State must have a body which provides comprehensive inspection services. To address the need for expertise in assessing a service provider, an NSA can seek support from Recognised Organisations as described under the legislation.¹²

The pool of expertise available to NSAs may be limited since the regulation rules out the possibility of Recognised Organisations being "controlled by air navigation service providers, airport management authorities or by others engaged commercially in the provision of air transport services"¹³.

This restriction on independence may cause particular difficulties in relation to some specific services such as Meteorological services, where a relatively limited number of experts are available outside the employ of service providers to provide the required supervisory and assessment functions.

The legislation appears to result in the qualification of the following types of body as recognised organisations (subject to their individual suitability):

¹² *Service Provision Regulation Article 3 and Annex 1*

¹³ *Service Provision Regulation Article 3 para 3*

- NSAs themselves
- European Aviation Safety Agency (when the principles and applicability of EASA beyond its current scope of airworthiness issues are established)¹⁴
- Independent undertakings existing for the purpose of providing certification services.

5.4 COOPERATION BETWEEN NSAS.

NSAs are required to ensure that they have appropriate arrangements with each other for close cooperation to ensure the adequate supervision of service providers¹⁵. However, such cooperation is not only a legal requirement but also a beneficial arrangement: the sharing of experiences and opinions will encourage the adoption of best practice among supervisory bodies and facilitate the common interpretation of the legislation.

Cooperation between NSAs is vital, particularly so where services are provided in FABs across national borders. In such a case the NSA should ensure that they have in place written agreements to cover the distribution of responsibility for supervision of service providers. These agreements will be more easily reached where there is transparency in the certification process.

It is possible that, in circumstances where one provider covers services in a FAB which includes the airspace of, for example, three States, the initial certification process may be undertaken by one NSA and later agreed by all three States' NSAs, allowing subsequent designation of the same provider by the three States. The on-going supervisory inspections may also be performed by only one State's NSA.

A Member State designating a service provider which has been awarded a certificate by another Member State's NSA can be confident of the service provider's suitability if it is clear that comparable standards have been applied, and a similar decision making process followed in its certification. To ensure this clarity, the mechanisms employed by the certifying NSA should be transparent to any requesting NSA. Transparency of the certification process may be better enabled by cooperative certification, where representatives of the designating Member State work with the certifying NSA to contribute to inspections. Alternatively, a review by the *designating Member State* of the certification process followed by the *certifying NSA*, including examination of appropriate evidence, will also facilitate open and common certification.

Transparency and cooperation between NSAs becomes even more important where additional conditions attached to certification are imposed. It is essential that any such conditions are understood by all NSAs associated with a service provider, such as is necessary in relation to a FAB, so that no unnecessary conditions are included which may lead to material differences in the certification process and result in either greater or more lenient supervision of one provider over another.

¹⁴ Regulation 1592/2002/EC establishing EASA requires the European Commission to submit proposals on EASA applicability to air operations.

¹⁵ Service Provision Regulation Article 2.4

Included in the Common Requirements are obligations on service providers to obtain the approval of the NSA awarding their certificates for the form, scope and level of detail of information to be provided in the Business Plan, Annual Plan and Annual Report; agreement between NSAs in this respect will be an important step towards common interpretation of supervision. The need for such agreement is all the more pressing in circumstances where delegation of services is directed towards the development of FABs.

This type of agreement and transparency of process (including between NSAs and between States) should allow a delegating State and its NSA to be confident of the fair and effective supervision of on-going compliance with Common Requirements in airspace for which the State ultimately has responsibility under the Chicago Convention.

Figure 4 below sets out the roles of NSAs and States in relation to the certification of service providers and development of FABs, including the possible cooperation between NSAs.

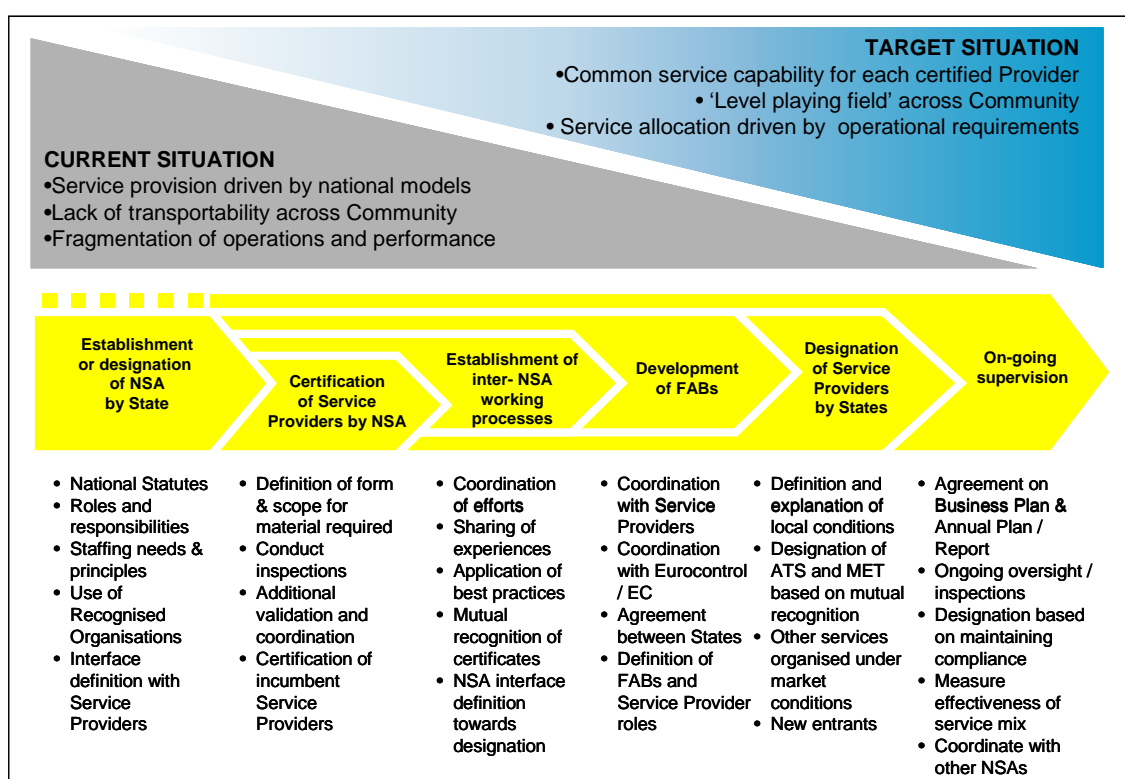


Figure 4. Roles of NSAs and States in Relation to Implementation of Common Requirements

5.5 RELATIONSHIP WITH SERVICE PROVIDER

Good communications between service provider and NSA are essential to enable oversight and to identify and remedy failures of compliance. The development of a partnership approach will benefit both service provider and NSA and the quality of supervision will ultimately be improved if the inspecting body understands both capabilities of and constraints on a service provider.

While the development of such a cooperative approach is likely to depend largely on the positive intent and goodwill of both parties to achieving it, the Common Requirements also contribute to this process.

Both the legislation¹⁶ and the Common Requirements place obligations on service providers to assist the NSA as much as possible in its duties. The Common Requirements do so directly, for example through the requirement to warn the NSA of factors which may prejudice a service provider's ability to provide services, and through the requirements to produce plans and reports for the information of the supervisory authority. This combination is intended to reduce the burden on the NSA while facilitating compliance with the Common Requirements and so contributing to the safe, efficient and effective provision of services.

Wherever possible the NSA should endeavour to reach agreement as soon as possible with the service provider on as many elements of the service provider's plans and annual report to be provided, as well as the financial measures to be adopted (this is supported by the Common Requirements to obtain the NSA's approval for the form, scope and level of detail of the various documents). The Common Requirements for the service provider to agree the financial measures with the NSA is particularly relevant to the initial certification process, where the expectations of all parties will be more easily met following positive communication which establishes an understanding of the information to be provided and examined. (It is recognised that some of the detail of such requirements may be achieved through the imposition of additional conditions attached to certification, their inclusion in the Common Requirements themselves in any form will, however, ensure a minimum level of compliance on a Community-wide basis.)

In addition to the information it will receive from the service provider, the NSA will benefit from the adoption of a proactive attitude towards interaction with the service provider, such as informing the service provider promptly of any concerns, should non compliance with the Common Requirements be anticipated. This means that the NSA should ensure that communication channels are established with each part of the service provider as it relates to the management of safety, financial and economic and operational matters. These communication channels should include the mutual identification of individuals who are to act as focal points for contact in each organisation.

The NSA also has a responsibility to maintain the confidentiality of the information supplied by the service provider, where justifiable, subject to content and national rules, and should document its policies for doing so.

5.6 FUNCTIONAL AIRSPACE BLOCKS

The Common Requirements are directed towards the development of FABs. The requirements therefore take account of the need for cross-border service provision under FABs and facilitate a common level of competence and suitability across the Community.

Service providers are obliged by the Common Requirements to consult with the NSA over aspects of service provision where these relate to the development of FABs. This includes consultation between NSA, civil and military service providers over the arrangements for

¹⁶ *Service Provision Regulation Article 2.2*

FABs, as well as reporting systems and arrangements for liability. In addition to consultation, the NSA will be expected to ensure compliance with the Common Requirements so that written agreements are in place to cover civil/military arrangements in each FAB.

Service providers have also to take account of FABs in the reporting of safety occurrences. Whereas current reporting requirements of safety occurrences through ESARR 2 are based on the need for service providers to produce reports to States, the development of FABs adds another dimension to the organisation of airspace. It is therefore appropriate for such reports to be based equally on FABs, as much as on national airspace, so that safety data is compiled and recorded in relation to how airspace is practically organised and the way services are provided.

This extra dimension for management and provision of services also generates issues relating to the sharing or distribution of liability between service providers across national borders. Member States will be expected to ensure that appropriate agreements are in place at State, NSA and service provider level to take account of these issues. The Common Requirements are designed to assist the NSAs in this process.

5.7 INDEPENDENCE

In accordance with Article 4 of the Framework Regulation, the NSA must be independent of the service provider(s) it supervises, with this independence being achieved through separation at the functional level at least. For the sake of supervisory credibility the position of Recognised Organisations must also be seen to be independent.

In order to demonstrate their independence and to reinforce the authority of the NSA so ensuring the validity of its certification work, the NSA should document its policy and procedures for ensuring separation from the service provider. This is particularly valuable where an NSA is functionally separate from the service provider but is part of the same overall organisation, or otherwise similarly connected. The NSA should ensure that the personnel involved in supervision of service providers are free from any pressure, financial or otherwise, which may affect the performance of their certification work.

5.8 FINANCIAL ASPECTS OF CERTIFICATION

Service providers are obliged by the Common Requirements to identify in their plans and reports the costs of regulation where these are supported. Although there is no restriction on, or requirement for, State support to regulatory functions through the Common Requirements, it is clear that the open and transparent identification of related costs, and the source of their supporting funding, will both facilitate common interpretation of the Requirements and also encourage a “level playing-field” since the cost burden of regulation on different service providers, including that associated with the assessment of compliance with the Common Requirements, will be visible.

6 SUPPORTING INFORMATION

6.1 FUNCTIONAL COMPETENCE REQUIRED OF AN NSA

National Supervisory Authorities assess a service provider's ability to provide services against the Common Requirements which, by their nature, facilitate a common level of suitability and competence. To make this assessment, NSAs will require sufficient staff possessing technical experience and knowledge in several broad domains of air navigation services:

- Safety
- Operations
- Finance
- Management
- Civil/military cooperation.

It is not expected that an NSA should necessarily possess the equivalent technical expertise as the service provider. Instead it should be focused on developing and maintaining an expertise in supervisory processes, while maintaining sufficient depth and scope of expertise to permit detailed understanding of the Common Requirements and familiarity with the activities of the service provider so as to enable it to assess compliance. Such capabilities may be achieved through the use of Recognised Organisations where necessary, which may also facilitate regional efficiency and harmonisation of supervisory processes and procedures.

6.1.1 Safety

The prime responsibility of any supervisory function in ATM must be to ensure that the safety of the services provided is not compromised. The NSA's staff should be sufficiently expert to ensure that a service provider complies with the general requirement to provide safe services. The NSA must also establish that the service provider has in place the appropriate procedures to ensure security such that safety is not adversely affected.

Given the nature of safety supervision, it must be coordinated with all other aspects of and NSA's activities.

6.1.2 Operations

The NSA must ensure that it has of significant technical expertise in the operation of air navigation services in order to assess the competency of a service provider with regard to many of the Common Requirements. The NSA must be able to assess the operational elements of the business plan, annual plan, and annual report, to ensure that these are practical and realistic - in the case of the plans - and that the report presents an accurate picture of events.

As well as an in-depth understanding of the day-to-day provision of services, the NSA must have sufficient experience relating to infrastructure requirements, and a detailed familiarity with international plans, including EUROCONTROL developments and regional agreements. In addition, the Common Requirements are designed to ensure the provision of information to the NSA, not only through the plans and reports, but also through the maintenance of operations manuals.

The operational elements of inspection must necessarily be coordinated with safety, finance and management regulation.

6.1.3 Finance

The NSA is responsible for ensuring the service provider's compliance with financial elements of the Common Requirements. The exact measures of a financial nature must be agreed with the service provider, but the NSA will need to possess sufficient expertise to perform or commission a review of the service provider's business plan, annual plan and annual report. There are also clear links between financial and operational supervision: for example, through the Common Requirements the NSA is required to examine the asset register of the service provider and to ensure that it reconciles with the provider's balance sheet.

The level and nature of the financial assessment required of the NSA is likely to vary depending on the legal status and commercial activity of the service provider and the NSA should ensure that the level of financial oversight, including audit requirements, is proportionate to these factors.

6.1.4 Management

The NSA must examine the organisation of the service provider together with information presented in the business plan, annual plan and annual report to determine if the service provider's structure is suitable for providing the services in the relevant airspace and that it is managed in a professional manner which ensures its sustainability. This requires an in-depth examination of the service provider's management organisation and familiarity with the skills and experience of the individuals responsible for its operation. In this respect the NSA will also need to assess the service provider against Common Requirements relating to human resources.

6.1.5 Civil/Military

Although military aspects are, in general, outside the scope of Community legislation, the Common Requirements apply to military service providers where they provide services to civil traffic and their activities in this respect are therefore overseen by the NSA.

A goal of the Single European Sky is to see close cooperation between civil and military authorities¹⁷ (not least to facilitate the concept of the Flexible Use of Airspace¹⁸) and the NSA will contribute to this aim by ensuring that service providers meet the Common Requirement for regular communication between civil and military providers. It is clear that to fulfil these responsibilities the NSA will require the provision of sufficient expertise in the

¹⁷ See Framework Regulation recital 6 and Service Provision Regulation recital 15

¹⁸ Airspace Regulation Article 7

military as well as civil field of aviation. In particular, the NSA must also determine that there are suitable agreements in place between service providers and between Member States for the management of Functional Airspace Blocks (FABs) as they relate to civil/military cooperation.

6.2 NSA ORGANISATIONAL PRINCIPLES

General principles for the establishment of new organisations are applicable to bodies such as NSAs. Of these some are related to the safety critical nature of the industry, others derive from management best practice or from the fact that an NSA's assets are, in the main, its personnel. Due to this important factor, an NSA's effectiveness as an organisation depends to a large extent on harnessing and developing the expertise of its staff. In this light, some guidelines towards the establishment of an NSA are given below.

6.2.1 Status of NSA

The legal status and institutional nature of the NSA designated or established by Member States should be clear. In addition, the rights and obligations of the organisation should be set out. For example, the NSA will require access to service provider facilities and personnel. It is appropriate for the NSA to maintain the right to enter premises or summon personnel at any time where the requirement to inspect relates to safety. This right should be entailed in the establishment or designation of the NSA and should be made clear to the service provider. The Common Requirements anticipate such rights by including provisions whereby the service provider must provide information on request and allow the NSA access to its personnel and premises for the purposes of assessment.

6.2.2 Organisation and Rules of Procedure

The NSA should develop an organisational structure suitable for the performance of supervisory functions across the domains described in Section 6.1. The structure should detail the level or responsibility and oversight of the executives and managers and demonstrate the communication links to other bodies in particular to any administrators (or owners) to whom the NSA is responsible.

Along with establishment of the organisational structure, the rules of procedures governing decision making should be clearly set out. These procedures should include provision for the receipt and management of any appeals against NSA decisions including the relationship with the State which maintains the overall regulatory responsibility. The appeals process should detail the level of responsibility at which appeals will be dealt with; it should specify time limits and the form of appeals.

The costs of the NSA should be identified as far as possible. Where costs are to be recovered from user charges for the services, the form and content of these costs should be fairly apportioned with the service provider being supervised. This will enable the service provider to meet the Common Requirement to demonstrate how and to what extent it supports the cost of supervision.

6.2.3 Primacy of Safety Function

Experience to date of service providers and regulators suggests that a greater focus on safety can be facilitated through a degree of independence of the safety regulation function from

other parts of the regulator. This should not hamper the coordination of safety oversight with other aspects of an NSA's supervisory activity. It should be emphasised that there is no presumption in the Common Requirements, or intended in any part of this document, as to the number of supervisory bodies employed by one Member State. An NSA may be one body with several functions, or several bodies as appropriate to the supervision of each function and determined at the discretion of the State.

Equally, NSAs across States may be able to share expert resources as applicable. The establishment or designation process of the NSA should therefore take account of the possibility to use common resources through bi-lateral or multi-lateral co-operation or the use of "recognised organisations".

6.2.4 Clarity of Purpose

The supervisory field is no different from other public service organisations or commercial undertakings in that the adoption of a clear mission and associated policies tends to translate into effective action. In practice this generally involves:

- a clear definition of roles and responsibilities of individuals and departments
- establishing clear and explicit procedures for the operation of each party's tasks.

While the former characteristic is essential for an organisation to move towards its goals, the latter avoids duplication of work and contributes to the complete coverage of all necessary activities.

It is vital that such actions are supported by extensive communication of the mission with understanding of its aims at all levels of the organisation in question.

Definition and communication can enable further steps:

- development of prioritisation schemes and criteria for supervisory inspections
- determination of criteria and of methods for control and assessment of supervisory inspections, e.g. the use of budget allocation tools.

6.2.5 Reporting Systems/Knowledge Management

Adopting an efficient reporting system to allow the monitoring of the performance of different departments, contributes to the management of quality of work. Such a system should cover defined processes, reporting paths and supporting tools.

A reporting system will also contribute to the overall information and knowledge management. This allows the organisation to realise the benefits of experience as supervisory activities are performed. Sharing experience with other parts of the organisation contributes to the transfer of expertise as much as possible through the *organisation*, so as to reduce the potential reliance on any *individuals*.

Furthermore, shared experience across NSAs will allow transfer of best practice on supervisory principles for the SES. NSAs should look to develop a forum for

communication and to assist in the establishment of such practices as various elements of the SES are phased in (see Section 6.2.8 below).

6.2.6 Internal Quality System

Starting from a base of the clear definition of responsibilities and standard processes, an organisation will benefit from the introduction of continual improvement management cycles. It is vital to such a process that senior management commitment to such a process is visible and robust. Continual improvement will involve the determination of criteria and methods for assessment and control of processes, as well as the introduction of measurement analysis and improvement of internal and external “customer” satisfaction. Against this background, the use of an efficient staff feedback policy enables information to be gathered for the organisation to improve processes and quality of outputs.

Greater transparency of the NSA’s processes, its performance and costs, will also reinforce its credibility and contribute to the provision of information from the service providers and the cooperative nature of its work.

6.2.7 Routine Processes/Tools/Methods for Staff

The employment of formal processes, tools and methods for day-to-day work assists in the management of staff and helps to drive the organisation towards its goals. IT support for standardising routine processes, where possible, will also assist in focusing expertise on the more complex elements of assessment. Having defined processes for their tasks provides guidance for staff and combined with methodological tools, such as check lists and criteria catalogues etc., will support their daily assessment and survey work.

Once again, an NSA should seek to standardise such tools and processes wherever possible through knowledge and experience shared via a collective forum.

6.2.8 Forum for Exchange of Experience

A collective forum for sharing of experience between NSAs is likely to be extremely beneficial. Such a forum should be organised at a Community level with the possible participation of Commission Services. Once established it should also serve to share experiences of the interpretation or implementation of individual Common Requirements, including the achievement of agreement on the format and scope of information to be submitted by service providers being assessed to their NSAs (see Section 5.4 above). It is recommended that this process be facilitated by the Commission at the earliest opportunity.

7 OPERATIONAL DATA - RECOMMENDATIONS

7.1 OVERVIEW

Part of Phase One and Phase Three of this Study concern the access to and use of operational data. This work commenced with identification of operational data for which access is required and use will be made under a common certification system. Thereupon, commonalities, both current and future, were identified providing input to the Common Requirements and recommendations for enhancing harmonisation and so providing benefits to the users.

The adopted approach concentrated on a review of relevant documents, standards and requirements from ICAO, EUROCONTROL and EUROCAE.

Activities undertaken included:

- Review of current ICAO requirements for access to data, data formats and pending requirements for standardisation
- Review of upcoming ICAO standards and guidelines
- Review of activities pursued by EUROCONTROL in terms of technology harmonisation and development of standards
- Consultation with users and stakeholders including service and data providers.

Combined with the study team's experience and knowledge, an overview of the essential data exchange elements in the ATM environment has been developed.

The safe access to and use of operational data is critical to ensuring the correct functioning of a coherent ATM system. The ability of an ANSP to manage and exchange data with other providers is therefore essential for the provision of safe and effective air navigation services.

The Service Provision Regulation recognises the importance of this area of ATM and addresses the two key areas of exchange of data and access to it¹⁹. It requires:

- the exchange of relevant operational data between ANSPs and between ANSPs and airspace users
- that access be granted to operational data on a non-discriminatory basis
- that Certified service providers, airspace users and airports shall establish standard conditions of access to their relevant operational data.

The existing arrangements relating to operational data were studied in Phase One of the Study, looking at the aspects of:

1. access and ownership (from a legal point of view)

¹⁹ Article 12.

2. data protection and its security.

Common Requirements for each of the above points have been developed and are detailed in Section 4.3 above as items 22 and 18 respectively.

7.2 ACCESS AND OWNERSHIP

In the ATM environment, no standard rules exist as regards the ownership and access aspects and in some cases the ownership of the information is vague.

In general, operational data is owned by the data originator or the organisation managing the data source/equipment. Although the sense of any property right is linked with the commercial value of the operational data, this is in most cases limited and should not pose any major impediments for the Common Requirements. Correspondingly, access to the data is the responsibility of the data owner. Access rules and rights, outlining the access of other bodies to the information owned by a particular entity, are defined mainly to support the integrity of the data.

7.3 DATA PROTECTION AND SECURITY

Much of the information necessary for ATM is safety-critical or sensitive in commercial or political ways. Therefore, there is an inherent need to manage access rights (replication rights) and other protection aspects in the ATM environment.

Security in this context refers not only to preventing the unauthorised reading of information, but also to preventing unauthorised or malicious modification or deletion of information.

Operational data is a mixture of data of different characteristics and complexity, with different levels of safety-criticality and sensitivity. The exchange of data is protected and secured mostly by use of agreements between data owners and users. These agreements set up rules for authentication and for the use of dedicated lines or other means of exchange.

Integration of information/data means that consistent and compatible mechanisms will be needed to handle the security aspects of information collection, content management and dissemination throughout the ATM environment. For example, some information may be confidential to Aircraft Operators for commercial reasons or information on certain categories of flight may be confidential to individual ECAC States for reasons of national or military security.

Common Requirements are needed to ensure the same level of understanding and to ensure uniformity as regards the protection and security elements.

The harmonisation of data protection legislation across the Community would further facilitate a uniform approach to data protection and security.

7.4 SUMMARY OF THE REVIEW OF DATA

The table below represents a top-level summary of the findings in relation to the two aspects studied²⁰.

Data Set	Access and Ownership	Data Protection and its Security
Aeronautical data	Data originator – ECAC states	In accordance with ICAO Annex 15
Surveillance data	Data originator, org. managing the data source/equipment	Individual agreements reg. radar data, ADS-B data is broadcasted
Meteorological data	Data originator	Individual agreements, dedicated telephone lines or similar
Flight plan and co-ordination data	Data originator	FDP service provision includes user authentication and data integrity and confidentiality mechanisms
Airspace management data	AMC (data originator)	Applied in accordance with the rules of the body responsible for the airspace
Air traffic flow management data	Data originator, CFMU	Service agreements between CFMU and the participating states cover security rules
Status data	Data originator, org. managing the data source/equipment	Data protection legislation for electronic equipment

Table 1. Summary of Operational Data – Ownership and Security

7.4.1 Aeronautical Data

Aeronautical data is a representation of aeronautical facts, concepts or instructions in a formalised manner suitable for communication, interpretation or processing [ICAO, Annex 15: Aeronautical Information Services, Chapter 2]²¹.

The relevant provisions include ICAO SARPS as follows:

- a. ICAO Annex 15 - Aeronautical Information Services
- b. ICAO Annex 4 - Aeronautical Charts
- c. ICAO Aeronautical Information Services Manual (Doc 8126).

These documents present a clear description of the AIS to be provided by the States. The recommendations connected to Aeronautical Data, therefore, underline the obligations related to compliance with the ICAO SARPS.

Further recommendations relate to centralised functions as described in recommendation #1 in Section 7.5.

²⁰ The Interim Report contains a full review of each of the data sets.

²¹ Square brackets denote sources.

7.4.2 Surveillance Data

Surveillance is defined as the provision of data and information of the quality required to facilitate the identification of all aircraft and the representation of their accurate position and kinetic characteristics as needed for Air Traffic Management [EUROCONTROL].

Relevant provisions include ICAO SARPS and EUROCONTROL guidelines as follows:

1. ICAO Annex 10, Aeronautical Telecommunications, Volume IV, Surveillance Radar and Collision Avoidance Systems
2. ICAO Doc 4444, Procedures for Air Navigation Services, Air Traffic Management
3. Radar Data Exchange Part 1-3. All Purpose Structured Eurocontrol Information Exchange (ASTERIX)
4. EUROCONTROL Guidelines for an Agreement for the Shared Use of Radar Sensor Data
5. The Originating Region Code Assignment Method (ORCAM) (managed by the Airspace Management domain of EUROCONTROL on behalf of ICAO).

These documents and methodologies provide an overview related to format and use of Surveillance Data. Therefore, the recommendations underline the obligations related to compliance with the above listed framework.

Further recommendations relate to simplified and harmonised bilateral service level agreements for as well radar as ADS-B data as described in recommendation #2 in Section 7.5.

7.4.3 Meteorological Data

Meteorological data comprises dynamic weather conditions and real time weather observation data (including down-linked aircraft data) as well as forecasts and warnings.

Relevant provisions include ICAO SARPS as follows:

1. Annex 3: Meteorological Service for International Air Navigation
2. Manual of Aeronautical Meteorological Practice (Doc 8896)

These documents present a clear description of the MET Services to be provided. The recommendations connected to Meteorological Data, therefore, underline the obligations related to compliance with the ICAO SARPS.

Further recommendations lie within centralised functions as described in recommendation #1 in Section 7.5.

7.4.4 Flight Plan and Co-ordination Data

Flight data comprises all flight plan related data known to a system such as: call-sign, aircraft type, departure and destination aerodrome, landing runway and take-off runway, planned flight levels, planned route (set of way-points), etc. Co-ordination data is the flight

data being exchanged between ATS units either via voice communication (estimates etc.) or data communication (OLDI etc).

Relevant provisions include ICAO SARPS and EUROCONTROL standards as follows:

1. ICAO Annex 2, Rules of the Air
2. ICAO Doc 4444, Procedures for Air Navigation Services, Air Traffic Management
3. EUROCONTROL On-Line Data Interchange (OLDI)
4. EUROCONTROL ATS Data Exchange Presentation (ADEXP).

These documents provide an overview related to Flight Plan and Co-ordination including data format. Therefore, the recommendations underline the obligations related to compliance with the above listed framework.

Further recommendations related to centralised functions as described in recommendation #1 in Section 7.5 and within improved information-sharing as described in recommendation #3 in Section 7.5.

7.4.5 Airspace Management Data

Airspace Management means a planning function with the primary objective of maximising the utilisation of the available airspace by dynamic timesharing and, at times, the segregation of airspace among various categories of airspace users on the basis of short-term needs.

In this context, daily airspace management is considered to include Airspace Management Cells (AMCs) and Airspace Use Plans (AUPs) as well as updates to these (Updated airspace Use Plan, UUPs).

Relevant provisions include EUROCONTROL guidelines and standards as follows:

1. Functional Specifications for Airspace Data Distribution and Civil/Military Co-ordination
2. Airspace Management Handbook for the Application of the Concept of the Flexible Use of Airspace
3. ATS Data Exchange Presentation (ADEXP)
4. The Originating Region Code Assignment Method (ORCAM) (managed by the Airspace Management domain of EUROCONTROL on behalf of ICAO).

These documents provide an overview related to Airspace Management including data format. Therefore, the recommendations underline the obligations related to compliance with the above listed framework.

Further recommendations lie within centralised functions as described in recommendation #1 in Section 7.5.

7.4.6 Air Traffic Flow Management Data

Air Traffic Flow Management means a function established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring that ATC capacity is utilised to the maximum extent possible, and that the traffic volume is compatible with the capacities declared by the appropriate air traffic service providers [SES].

Relevant provisions include EUROCONTROL guidelines and standards as follows:

1. CFMU Handbook documents / user manuals etc.
2. ATS Data Exchange Presentation (ADEXP).

These documents provide an overview related to Air Traffic Flow Management including data format. Therefore, the recommendations underline the obligations related to compliance with the above listed framework.

Further recommendations lie within improved information-sharing as described in recommendation #3 in Section 7.5.

7.4.7 Status Data

Status data comprises all data providing operational status of any navigation aids. The most common air navigation aids cover instrument landing systems (ILS), VOR/DME, NDB, etc.

In this context, status data is considered as the data output of the conduction of electrical and mechanical tests of all navigational aids and associated equipment to determine operational status and efficiency.

No recommendations are identified as regards Status Data.

7.5 FURTHER RECOMMENDATIONS

7.5.1 Benefits

A recommendation to introduce a modification or adjustment of procedures connected to the exchange of operational data should clearly identify the benefits, which can be realised. Therefore, the following list of recommendations is listed based upon the benefits which can be achieved:

1. Reduced probability for erroneous data / tampering of data etc.
Approach: Reduced number of links, centralised/common source.

By reducing the number of links for any data, the probability or risk for erroneous data is reduced. The fewer links, the fewer possibilities for inaccuracies etc. In addition, the fewer contacts from data source to data destination, the less probability for tampered data. This is also linked with safety aspects.

It is, therefore, recommended to introduce centralised or common sources if practicable. Examples, in this context could cover the existing EAD and the use

of lead AMCs. It is, however, important to weight this centralising aspect against costs and complexity.

This should lead to requirements to the ANS providers covering the use of established centralised functions such as the EAD or other functions, which may be established in the future.

2. Increased flexibility and reduced workload.

Approach: Reduced complexity, simplified and harmonised rules and procedures, establishment of service agreements.

Flexibility can be increased by improving efficiency through decreasing rules, requirements and procedures including decreasing of the co-ordination needs. This is linked with workload.

It is, therefore, recommended to simplify and harmonise the rules and procedures - on a European level - that define the exchange of operational data without hampering any safety and security levels. The stringent use of harmonised bilateral service level agreements is envisaged to enforce this aspect since this will increase transparency and match working procedures across States.

This should lead to requirements to the ANS providers covering the use of agreements such as those described in the "Guidelines for an Agreement for the Shared Use of Radar Sensor Data" developed by Eurocontrol.

3. Improved data information flow, shortened decision-making process

Approach: Collaborative Decision Making (CDM).

CDM is expected to increase capacity, operational efficiency and operational flexibility. This will be achieved through improved exchange of information permitting improved planning and decision-making.

CDM covers all areas in the ATM environment with the main objective to demonstrate operational improvements for end-users by introducing enhanced information-sharing (ref. <http://www.euro-cdm.org/index.htm>).

It is recommended to study and if appropriate eventually adopt the results of the work undertaken in this area.

The trend is towards an environment where data is exchanged system-wide, thus, changing the focus from the individual problems of interface standardisation and information exchange to the need for overall co-ordination and management of the logistics of information sharing in a distributed environment. In this context, it shall be recognised that sensitivities with regard to Intellectual Property Rights will exist.

This should lead to requirements to the ANS providers covering improved information-sharing procedures. These remain to be thoroughly investigated in

this context, but include issues such as CDM or Total Information Sharing in ATM.

7.5.2 Minimum Technology Requirements

Although the Interoperability Regulation provides the framework for technology requirements, those identified below are presented as recommendations deriving from the assessment of standards and guidelines analysed in Phase One of this Study.

The recommendations identify a set of minimum technology requirements necessary to facilitate future data exchange. These requirements are supported by expected enhancements needed to meet the requirements (or actions required).

In order to identify these requirements different issues have been considered including:

- the need to mandate the use of existing standards such as OLDI, ADEXP and ASTERIX etc.
- the requirement that all services have to comply with ICAO Standards and Recommended Practices (SARPS)
- the requirements put forward in the ECIP and the LCIPs
- the use of open and widely used standards such as transmission control protocol/internet protocol for interconnection and data exchange to the maximum extent possible.

The results do not focus on any actual types of technologies or applications, since the technical solution might not be agreed upon, may not be mature enough or may be of a restrictive nature.

Given that the identification of minimum technology requirements is based on existing standards and guidelines, and noting that ECAC covers the widest grouping of Member States of any European organisation dealing with civil aviation, considerable weight should be given to the ECIP and the LCIPs.

The ECIP describes the commonly agreed actions to be taken by the EUROCONTROL States and other ECAC States participating in the European Air Traffic Management Programme (EATMP) to meet the strategic principles and objectives set out in the EUROCONTROL ATM 2000+ Strategy.

The ECIP provides an ECAC-wide, common medium-term Implementation Plan for Europe for improving ATM performance over the next 5 to 7 years. In order to implement those actions properly in each State, the local adaptation of the ECIP, the LCIP is developed for each State.

As regards exchange of data, the majority of the technological related requirements address the format of the data being exchanged. The protocols or means used for the data exchange are mainly considered to be the open and widely used standards such as TCP/IP. However, it is considered to be commercially restrictive to put forward specific requirements in this respect.

7.5.2.1 *Aeronautical Information*

- Aeronautical Information should be exchanged in accordance with the requirements outlined in the ICAO SARPS documented in Annex 15 - Aeronautical Information Services, and the Aeronautical Information Services Manual (Doc 8126).
- The development of Aeronautical Charts should be in compliance with the requirements of ICAO SARPS documented in Annex 4 - Aeronautical Charts, and the Aeronautical Chart Manual (Doc 8697).

Enhancements needed to meet the requirements: the ICAO-contracting states should already comply with the SARPS.

7.5.2.2 *Surveillance Data*

- Radar Data should be exchanged in the ASTERIX format.
- The Originating Region Code Assignment Methodology (ORCAM) should be applied for transfer of aircraft in verified discrete SSR codes.

Enhancements needed to meet the requirements: both requirements are implemented and working in today's ATM environment in the ECAC states.

7.5.2.3 *Meteorological Data*

- Meteorological Data shall be exchanged in accordance with the requirements outlined in the ICAO SARPS documented in Annex 3: Meteorological Service for International Air Navigation.

Enhancements needed to meet the requirements: the ICAO-contracting states shall already comply with the SARPS.

7.5.2.4 *Flight Plan and Co-ordination Data*

- Flight Plan and Co-ordination Data shall be exchanged in compliance with the EUROCONTROL Standard Document for OLDI, latest edition.
- The format of the Flight Plan and Co-ordination Data messages being exchanged shall be ADEXP²².
- The ICAO format of the messages should be optionally supported.

²² The ADEXP format has been specified for use within the following areas of message exchange:

- Flight Planning: exchange of flight plan data and associated messages between the IFPS, ATS and AO
- Air Traffic Flow Management: exchange of messages between the TACT of the CFMU, AO and ATS
- Air Traffic Control Co-ordination: exchange of tactical co-ordination messages between ATC Units
- Airspace Management: exchange of data between National ATS Units, the CFMU and AO, concerning airspace availability
- Civil/Military Co-ordination: messages concerning civil/military flight data and airspace crossing messages.

Enhancements needed to meet the requirements: OLDI is either implemented or being implemented in the short term in the ECAC states. Additionally, SYSCO level 1 is being implemented in most ECAC states in the short term. Both requirements and the planned dates for implementation are presented in the LCIPs.

ADEXP1 is already commonly accepted and used throughout the ECAC states. ADEXP mostly replaces the ICAO format.

7.5.2.5 *Airspace Management Data*

- The AUP/UUP/CRAM shall be prepared in the ADEXP format.

Enhancements needed to meet the requirements: ADEXP1 is already commonly accepted and used throughout the ECAC states. The FUA principle is addressed through LCIPs.

7.5.2.6 *Air Traffic Flow Management Data*

- Air Traffic Flow Management Data Information shall be exchanged in the ADEXP format.

Enhancements needed to meet the requirements: ADEXP1 is already commonly accepted and used throughout the ECAC states.

7.5.2.7 *Status Data*

No technology requirements are identified.

APPENDIX

COMMON REQUIREMENTS FOR THE PROVISION OF AIR NAVIGATION SERVICES

GENERAL REQUIREMENTS

TECHNICAL AND OPERATIONAL COMPETENCE AND SUITABILITY

Capability of Providing Services

1. The service provider shall be able to provide the air navigation services for which it is certified in a safe, continuous, cost-efficient and sustainable manner, pursuant with the demand for such services in European airspace.
2. The service provider shall maintain sufficient expertise in the provision of services for which it is certified, being at least equivalent to that of having provided similar services over a period of two years or more.
3. The service provider shall maintain sufficient technical and operational capacity to meet the expected demand for its services.
4. The service provider shall manage its organisation in such a way that it supports the safe, effective, efficient and continuous provision of services.

Maintenance of Operations Manuals

5. The service provider shall maintain operations manuals relating to the provision of its services, including those provided in Functional Airspace Blocks.
 - 5.1. the service provider shall provide copies of its operations manuals to the appropriate NSAs, with any updates.

Capability of Staff

6. The service provider shall employ sufficient adequately trained personnel to ensure the provision of its services in an effective and efficient manner.
 - 6.1. the level of qualifications of the service provider's staff shall be defined in compliance with ICAO Annex 1 Personnel Licensing, (ninth edition July 2001) and with section 5 of ESARR 5, with precedence given to ESARR 5 where differences may exist.
7. The service provider shall employ sufficient adequately trained personnel to implement and maintain compliance with ESARRs.
8. The service provider shall maintain a register of information on the numbers, status, deployment of its staff.
 - 8.1. the register shall identify the individuals responsible for ESARR coordination and implementation across the organisation.
 - 8.2. the register shall identify the locations and duties to which its relevant technical and operational staff are assigned including any rostering methodology and the average working hours of its staff by category of staff
 - 8.3. the register shall identify the accountable managers for safety related functions
 - 8.4. the register shall record the relevant qualifications of its technical and operational staff, against required skills and competency requirements.

Human Resources Management

9. The service provider shall maintain sufficient managerial and technical personnel to perform and maintain its services, and to meet the strategic aims of the organisation, in an efficient and effective manner
 - 9.1. the service provider shall adopt and document formal Human Resource policies which demonstrate the service provider's competence and commitment to the development of its personnel
 - 9.2. the service provider shall maintain a comprehensive set of tools and process as part of a Human Resources quality programme
 - 9.3. the service provider shall adopt formal recruitment and retention measures.
10. The service provider shall describe its recruitment and retention requirements including the justification of any restrictions on the recruitment of controllers, giving reasons for exclusion, including any special mandatory qualification and security requirements, and identifying the source of such provisions whether due to national legislation or otherwise.
11. The service provider shall describe its organisational structure relating to Human Resources.
 - 11.1. this shall include an organisation chart which demonstrates the relationship between the Human Resource functions and other parts of the organisation as well as the areas of responsibility of executives and senior managers with respect to Human Resources.

Quality Management Systems

12. The service provider shall maintain a formal quality management system which covers all services for which it is certified
 - 12.1. the quality management system shall comply with ISO 9001:2000. Accreditation shall be demonstrated by a certificate issued by a Certification Body (or Quality Registrar) which itself has been accredited by a National Accreditation body which is signatory to the European Cooperation for Accreditation (EA) Multilateral Agreement (MLA) for Certification for Quality Systems.

Safety Management System

13. The service provider shall ensure that it has instituted and documented measures to ensure safety. This shall include the adoption of a safety management system which is in compliance with Section 5 of ESARR 3.
14. The service provider shall ensure that it has implemented risk assessment and mitigation capabilities in compliance with Section 5 of ESARR 4, including the provision of supporting documentation for the NSA for any changes to the ATM system.

Safety Reporting System

15. The service provider shall adopt and implement an occurrence reporting and assessment scheme in order to analyse their safety performance and improve their safety level by devising and taking adequate action to overcome any identified weaknesses
 - 15.1. the system adopted shall ensure that occurrence reporting is performed using automated procedures as far as possible

- 15.2. the system adopted shall ensure monitoring of safety trends and development of associated corrective actions
- 15.3. the system adopted shall be in compliance with section 5 of ESARR 2.
- 16. The service provider shall ensure that its safety occurrence reporting system takes account of the organisation of airspace for which it provides services and enables the reporting of incidents/occurrences to the appropriate NSA, as required by the reporting system, on this basis.

Security Systems and Processes

- 17. The service provider shall adopt and document its systems and procedures for ensuring the security of its facilities and personnel so as to prevent unlawful interference with the provision of services. These systems shall include procedures relating to security risk assessment and mitigation, security monitoring and improvement, security reviews and surveys and lesson dissemination.
- 18. The service provider shall adopt and document security systems and procedures for ensuring the security of data it receives or produces or otherwise employs, so that access to it is restricted only to those authorised
 - 18.1. this shall include the adoption of a security management programme relating to data which is integrated with the design, manufacture, test, installation, operation and maintenance of operational systems
 - 18.2. the security management programme shall identify the means of containing the effects of security breaches internally and externally to the system and identify recover action and mitigation procedures to prevent re-occurrence
 - 18.3. the security management programme shall include measures designed to detect security breaches and to alert users with appropriate security warnings.
- 19. The service provider's procedures for ensuring security of its facilities, personnel and data and information shall include coordination with the relevant civil and military authorities.
- 20. The security systems and procedures adopted by the service provider shall be consistent with any plans or programmes required by other EU or national legislation, including national civil aviation security programmes established according to Regulation 2320/2002 establishing common rules in the field of civil aviation
 - 20.1. the service provider shall provide copies of its security policies and procedures to the NSA.

Contingency Plans

- 21. The service provider shall adopt and document formal contingency plans which detail the steps to be followed towards the maintenance of services in the case of events which result in significant degradation or interruption of services. These plans shall cover events resulting from accidents, intentional acts, unscheduled breakdown or force majeure
 - 21.1. the service provider shall detail organisational responsibility for the plans
 - 21.2. the service provider shall ensure that plans are communicated throughout its management

- 21.3. the contingency plans shall consider the possible impacts on neighbouring areas of such events, and be coordinated with all relevant local and regional authorities, service providers and users, as appropriate
- 21.4. the contingency plans shall detail internal and external coordination actions toward the recovery of services
- 21.5. the service provider shall provide the relevant NSAs with copies of its contingency plans accompanied by a description of procedures for their communication through its organisation and with other relevant parties.

Operational Data

- 22. The service provider shall ensure that it has in place suitable procedures and processes to enable the exchange of data with other services providers and other organisations as detailed in plans developed through Community legislation.

Consultation with Users

- 23. The service provider shall consult regularly with stakeholders, including its users, to ensure that it is providing satisfactory services
 - 23.1. providers of Air Traffic Services and Meteorological services shall solicit the opinions, at least twice each year, of a cross section of its users including the top three representatives of commercial aviation, measured by aircraft movements, and general aviation.
- 24. The service provider shall adopt and document procedures for responding to complaints from users.

Consultation with other service providers

- 25. The service provider shall regularly report on consultations with all relevant service providers in neighbouring airspace to ensure the smooth provision of services, including circumstances where airspace is subject to vertical separation.

Consultation with the NSA

- 26. The service provider shall, on request of the NSA, provide all relevant information to enable the NSA to assess compliance against these Common Requirements.
- 27. Where the service provider provides reports or information to the NSA it shall obtain the approval of the relevant NSA regarding the language in which that information is provided.

Civil/Military Cooperation

- 28. The service provider shall ensure that it has written agreements in place with its relevant civil or military counter-part providers in respect of the management of airspace for which it provides services.
 - 28.1. the service provider shall coordinate plans for activities in times of crisis and war, with its relevant civil and military counterparts and authorities.
- 29. The service provider shall coordinate with its civil or military counterparts to facilitate the implementation of the concept of Flexible Use of Airspace, including in any Functional Airspace Blocks.

Expert Support to the State

30. The service provider shall make available to the relevant NSA appropriate materials and expertise to allow the State to discharge its national and international obligations and legal or regulatory requirements, as agreed with the NSA

30.1. this shall include information in support of any reports required by the European Commission in relation to the concept of the Flexible Use of Airspace.

Obligation to Alert NSA

31. The service provider shall bring to the attention of the NSA any issues or events which are likely to impact materially on its ability to maintain its technical and operational competence so as to ensure the safe provision of services.

FINANCIAL STRENGTH**Ability to Meet Financial Obligations**

32. The service provider shall be able to meet its financial obligations, such as the fixed and variable costs of operation or capital investment costs, in order to allow it to provide its services.
33. The service provider shall be able to demonstrate to the NSA at any time, its ability to meet its financial obligations through the provision of plans and accounts.
34. The service provider shall make available relevant staff to the NSA in any investigation of the service provider's financial position.

Management of Assets

35. The service provider shall maintain a register which identifies all relevant assets (i.e. assets which form part of the operational system by which the service provider provides its services)
- 35.1. this register shall reconcile the relevant assets with the service provider's financial reports and plans including its balance sheet.
36. The service provider shall not dispose of relevant assets without the prior agreement of the NSA where this has a material effect on their ability to provide their services.
37. The service provider shall not allow its relevant assets to become subject to any claim from third parties, such as through a mortgage or other security, without prior agreement of the relevant NSA.

Non-ANS Activities

38. The service provider shall not conduct any other type of business outside the provision of air navigation services where this may prejudice its ability to provide the services for which it has been certified.
39. The service provider shall inform the NSA of involvement with any commercial activities outside the field of its certified services.

Obligation to Alert NSA

40. The service provider shall bring to the attention of the NSA any issues or events which are likely to impact materially on its ability to meet its financial obligations as soon as it becomes aware of them.

OWNERSHIP AND ORGANISATIONAL STRUCTURE

Ownership

41. The service provider shall provide the NSA with a description of its legal status.
42. Where the legal status of a service provider allows it to be described as being owned or partly owned by another body, including a Member State, the nature or degree of ownership shall be made explicit
 - 42.1. this shall include the proportions of shares owned or changes of government department responsibility.
43. A provider of Air Traffic Services shall be owned and substantially controlled by Community government(s) or individuals or undertakings of Community nationality.
44. The service provider shall inform the NSA of any changes to its ownership or to its legal status.

Links with other Organisations

45. The service provider shall not maintain connections with other organisations which result in competition being unfairly restricted (under the meaning of Article 81(1) of the EC Treaty) in any market for the provision of air navigation services.
46. The service provider shall describe any connections with other organisations involved in air navigation service provision.
47. The service provider shall describe any links with other organisations other than those involved in air navigation service provision, including commercial activities in which they are engaged either directly or through related undertakings.

Organisational Structure

48. The service provider shall maintain an organisational structure which allows it to deliver its services safely, effectively and efficiently.
49. The service provider shall describe its organisational structure
 - 49.1. this description shall include the production of an organisation chart which details the management reporting structure and the areas of responsibility of executives and senior managers
 - 49.2. the description of organisational structure shall also describe the relationship between different parts of the organisation including how functional and organisational units relate to each of the individual services provided, this shall include the roles, responsibilities and reporting lines of accountable managers for safety related functions.
50. The service provider shall be organised in such a way that it can accommodate relevant infrastructure and technology developments resulting from plans developed through Community legislation.
51. The service provider shall inform the NSA of any significant changes to its organisational structure.

ACCESS TO SERVICES

Open and Transparent Provision of Services

52. The service provider shall provide its services in an open and transparent manner in accordance with the principles of ICAO and the provisions of Community Treaties.
53. The service provider shall ensure that it has a documented policy to provide services in such an open and transparent manner.
54. As far as is reasonably practicable the service provider shall make available its services to all users in its area of responsibility in a non-discriminatory manner, in accordance with the principles established by ICAO.
55. The service provider shall not unduly discriminate against or give preferential treatment to any user or class of users in respect of the terms on which services are provided, to the extent that such terms have or are intended or are likely to have the effect of preventing, restricting or distorting competition in any market (under the meaning of Article 81(1) of the EC Treaty).
56. The service provider shall ensure that restrictions on access to services on the grounds of defence and security reasons (as set out in Article 11 of the framework Regulation XXX/XX²³) are proportionate.

LIABILITY AND INSURANCE

Obligation to Cover Liabilities

57. A provider of Air Traffic Services shall ensure that it has in place arrangements to cover losses for damages arising from liabilities to Member States or to third parties (airlines, passengers, users, etc.) which occur due to its action or inaction
 - 57.1. a provider of Air Traffic Services shall provide a copy of its insurance policy or documented details of other arrangements to the NSA.
58. A provider of services other than Air Traffic Services shall ensure that it has in place arrangements to cover losses arising from liabilities to providers of Air Traffic Services or to Member States or to third parties (airlines, passengers, users, etc.) which occur due to their action or inaction.
59. This cover for liabilities shall include damages to Member States or third parties relating to personal injury or death, property and consequential damage and for damages arising from a material interruption to the service provided.
60. The method employed to provide cover for liabilities shall be appropriate to the potential losses in question, taking into account the legal status of the service provider. This may include the use of a commercial insurance policy or the underwriting of liabilities by means of a State guarantee or another suitable mechanism.
61. Providers of services who use the infrastructure of another provider shall ensure that they have concluded agreements relating to this use.
 - 61.1. They shall demonstrate to the NSA that the allocation of liability between the parties is clear and cover is provided according to the principles above.

²³ Common Position 47/2002

SPECIFIC REQUIREMENTS

Air Traffic Services

62. Providers of Air Traffic Services shall define working methods and operating procedures consistent with ICAO Annex 11 Air Traffic Services, Annex 2 Rules of the Air, Doc 4444 PANS-ATM and Doc 7030/4 EUR Regional Supplementary Procedures.

Meteorological Services

63. Providers of Meteorological Services shall define working methods and operating practices consistent with ICAO Annex 3 Meteorological Service for International Air Navigation and Doc 8896 Manual of Aeronautical Practice.

Aeronautical Information Services

64. Providers of Aeronautical Information Services shall define working methods and operating practices consistent with ICAO Annex 15 Aeronautical Information Services, Annex 3 Meteorological Service for International Air Navigation, Annex 4 Aeronautical Charts, Doc 8400 PANS-C, Doc 8126 Aeronautical Information Services Manual and Doc 8697 Aeronautical Chart Manual.

Communications/Navigation/Surveillance

65. Providers of Communication, Navigation or Surveillance Services shall define working methods and operating procedures consistent with ICAO Annex 10 Aeronautical Telecommunications.

Information Exchange

66. The service provider shall satisfy performance requirements and guarantee interconnectivity as provided for in Regulation (EC) No XXX/XX [Interoperability]. These requirements shall be specified in terms of minimum required performance for specified classes of users.
67. The service provider shall ensure that information and data is available for operations, prior to and during flights, in a suitable form for airspace users and other service providers, consistent with ICAO Annex 5 Units of Measurement to be Used in Air and Ground Operations, Annex 10 Aeronautical Telecommunications, Annex 11 Air Traffic Services, Annex 14 Aerodromes, Annex 17 Security and Doc 7554 Air Navigation Plan European Region.
68. The service provider shall use only operational information and data from other certified providers, unless otherwise agreed by the NSA through justification of source and quality.

BUSINESS PLAN

General

69. The service provider shall provide the NSA with a business plan which covers a minimum period of five years. This plan shall set out the overall aims and goals of the service provider and its strategy towards achieving them.
- 69.1. The service provider shall obtain the approval of the NSA as to the form, scope and level of detail to be provided for each element of the business plan.
- 69.2. The business plan shall contain details of the operations, systems and processes of the service provider and how it will ensure the safe, efficient and effective provision of services
- 69.2.1. the business plan shall describe how such plans have been translated into financial requirements
- 69.2.2. at the earliest opportunity, the service provider shall bring to the attention of the NSA any issues or events which are likely to impact materially on its ability to achieve the aims of its business plan.
- 69.3. The business plan shall contain information which demonstrates the financial sustainability of the service provider's activities.
- 69.4. The business plan shall not conflict with other relevant plans developed through Community legislation.
- 69.5. The business plan shall be consistent with any overall longer term plan of the service provider.
- 69.6. The business plan shall cover forecasts of the service provider's financial results and all relevant financial measures relating to expected income and expenditure including user charges
- 69.6.1. the relevant financial measures shall be determined in conjunction with the NSA, taking into account the nature and legal status of the service provider, so that they cover all relevant elements of the service provider's financial plans.
- 69.7. The business plan shall detail any capital investments and the nature and source of the financing to support these.
- 69.8. The business plan shall detail the service provider's expected operating costs and the source of the financing to support these.

Management of Assets

- 69.9. The business plan shall include details as to how the service provider will develop and maintain its relevant assets so that it can continue to provide the services effectively and efficiently.
- 69.10. The business plan shall detail plans for the management of any implementation of new infrastructure or other developments and how they will contribute to providing the necessary capacity and safety of the service.

- 69.11. The business plan shall indicate the ability of the service provider to meet any expected costs associated with new infrastructure.
- 69.12. The business plan shall demonstrate the service provider's compliance with relevant international provisions for the development of infrastructure or other technology, such as those arising from the ICAO and other regional agreements enforced through Community legislation, and shall include any obligations deriving from any arrangements relating to regional cooperative planning initiatives.

Investment Strategies

- 69.13. The business plan shall include information on any planned investments for the provision of air navigation services by the service provider, including those in other organisations or undertakings, describing the nature and strategic intent of these investments.

Human Resources

- 69.14. The business plan shall include all relevant financial information relating to Human Resources in order to demonstrate to the NSA that the service provider has the financial capability to maintain and develop sufficient personnel so as to provide its services.
- 69.15. The business plan shall include information on the service provider's policy and procedures relating to Human Resources including those directed towards recruitment, training and consultation with staff
- 69.15.1. this information shall demonstrate to the NSA that the service provider is able to recruit and retain sufficient operational Human Resources for the provision of services to the performance levels to be agreed in the Business and Annual Plans.

Supervisory and Regulatory Costs

- 69.16. Where the service provider supports the costs of its supervision or regulation, the business plan shall include information relating to the amount of such costs and the methodology by which they are calculated.
- 69.17. The business plan shall also detail the expected costs to the service provider of providing support to the State.

ANNUAL PLAN

General

70. The service provider shall provide the NSA with an annual plan which demonstrates its ability to provide services safely, effectively and efficiently and which describes any changes to the business plan. It shall include, but not be restricted to, capacity, service levels and financial arrangements
- 70.1. the service provider shall obtain the approval of the NSA as to the form, scope and level of detail to be provided for each element of the Annual Plan.

Capacity

- 70.2. The annual plan shall demonstrate that the service provider has sufficient capacity to provide services effectively and efficiently, based on local and regional forecasts
- 70.2.1. the annual plan shall include a statement which sets out the nature of the infrastructure which is available to users and explains the conditions for access to such infrastructure such as infrastructure capacity.
- 70.3. The annual plan shall describe the methodology, tools and inputs in determining capacity, including the basis of forecasts employed, as well as any underlying assumptions regarding airspace
- 70.3.1. the service provider shall demonstrate to the NSA that it has consulted with users representative of the current and future need for services in the development of the plan.

Quality of Services

- 70.4. The annual plan shall include details of the level of service delivery that the service provider intends to meet (and which must be agreed with the NSA), such as the expected level of delays to flights incurred as a result of services provided.
- 70.4.1. the service provider shall demonstrate the methodology and inputs employed in the calculation of the planned level of service delivery.
- 70.5. The service provider shall adopt and describe in the annual plan indicators of performance against which the quality of service may be reasonably assessed. This shall include at least those developed by EUROCONTROL's PRC or SRC and subsequently agreed by the Provisional Council.

Financial Plan

- 70.6. The annual plan shall also set out the service provider's expected short-term financial position and include progress towards the business plan as well as any material changes to or impacts on this plan.
- 70.7. The annual plan should include all financial measures included in any element of the five year plan as well as any additional measures appropriate to the shorter timescale of the plan
- 70.7.1. additional measures, if any, should be determined in conjunction with the NSA, taking into account the nature and legal status of the service provider.

- 70.8. The annual plan shall include information, in line with that in the business plan, on the management of relevant assets and of investments of the service provider as appropriate to the shorter timescale of the annual plan.

Supervision and Regulatory Costs

- 70.9. Where the service provider supports the costs of its supervision or regulation the annual plan shall include information, relating to the expected value of such costs and the methodology by which they are calculated.
- 70.10. The annual plan shall also detail the expected costs to the service provider of providing support to the State.

ANNUAL REPORT

General

71. The service provider shall provide an annual report of its activities to the NSA. This report shall cover its financial results, including those relating to user charges, operational performance and any other significant activities and developments.

71.1. the service provider shall obtain the approval of the NSA as to the form, scope and level of detail to be provided for each element of the annual report.

Capacity

71.2. the Annual Report shall include a transparent effectiveness assessment of the capacity generated during delivery of the air navigation services

Quality of Services

71.3. The annual report shall include the performance of the service provider, reconciling actual performance against the annual plan and using indicators of performance against which the quality of service may be reasonably assessed, including at least those developed by EUROCONTROL's PRC or SRC and subsequently agreed by the Provisional Council.

71.4. The annual report shall include developments in operations and infrastructure developments.

71.5. The annual report shall identify any material differences from information in the LCIP.

71.6. The annual report shall include information on the service provider's consultation with its users. This consultation shall be demonstrated, at the minimum, by a record of the opinions of a cross-section of the service provider's users, to be sought at least twice-yearly, including the top three users measured by number of aircraft movements.

71.7. The annual report shall include information on the service provider's consultation with other civil and/or military service providers and, for civil providers, with the institutions responsible for military air traffic

71.7.1. this consultation shall be demonstrated, at the minimum, by a record of meetings between representatives of the various parties which shall be held at least twice-yearly.

71.8. The annual report shall include information on any progress towards the concept of the Flexible use of Airspace.

Financial Results

71.9. The annual report shall set out for the NSA the financial position of the organisation. It shall include the results of all appropriate financial measures contained in the business plan and annual plan and any investment activities

71.9.1. the service provider shall disclose in its annual report to the NSA any cross-subsidy (in the form of monies or otherwise) between any separate business or part of a separate business of the service provider's or any other related bodies.

Supervision and Regulatory Costs

- 71.10. Where the service provider supports the costs of its supervision and regulation, the annual report shall detail the nature and amount of these costs.
- 71.11. The annual report shall also detail the costs incurred by the service provider in providing support to the State.