



EUROCONTROL GUIDANCE MATERIAL
related to the European Commission
Regulation N° 2096/2005 laying down
Common requirements for
the Provision of Air Navigation Services

**Guidance Material for Air Navigation Services Providers
compliance with the Common Requirements**

VOLUME I

Air Traffic Services Provider and
Communication, Navigation and Surveillance
Services Provider

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<p>This document provides guidance for for Air traffic Services Providers (ATSPs) and Communication, Navigation and Surveillance Providers (CNSPs) to comply with the CRs for Air Navigation Service provision and to obtain certification.</p> <p>It offers guidance without any legal impact on the conduct of the certification process, and ATSPs and CNSPs may decide upon their own model for implementing the certification process making use of existing practices.</p>		
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DOCUMENT APPROVAL

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The following table records the complete history of the successive editions of the present document.

EDITION NUMBER	EDITION DATE	INFOCENTRE REFERENCE	REASON FOR CHANGE	PAGES AFFECTED
1.0	13/01/06		Release	All
2.0	29/05/06		No change in content. Only alignment of chapter references on the released version of the “Eurocontrol Generic Safety Management manual”. <i>(modified lines are <u>underlined</u>)</i>	Part A, pages 12 All Part B
			Update of “Criteria” information reflecting the new structure and content of several SRU deliverables (released March-April 2006): <ul style="list-style-type: none"> • EAM3/GUI 3 v 2.0, • EAM4/GUI 2 v 4.0, • EAM5/GUI 4 v 2.0 <i>(modified lines are <u>underlined</u>)</i>	Part B (pages 35 to 62) and Part C (pages 87 to 91)
			Mention of the new document EAM 1 / GUI 7 “Guidance on the criteria for the assessment of compliance with the standards of ICAO annex 11” v1.0 <i>(modified lines are <u>underlined</u>)</i>	Part D Page 100

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SE SIS Guidance Material Disclaimer

The EUROCONTROL SE SIS guidance material is made available to EUROCONTROL and ECAC Member States to provide guidance and support in advising their National Supervisory Authorities and Air Navigation Service Providers in the preparation of the certification process in compliance with the Commission Regulation(EC) No 2096/2005 of 20 December 2005 laying down common requirements for the provision of air navigation services.

The information assembled in the guidance material reflects the SES legislation in force on the date of publication in the Official Journal of Regulation No. 2096/2005, laying down the Common requirements for Service Provision.

The compliance of the Member States, in particular their NSA, and of the ANSPs with their obligations under the SES regulations and subsequent legislation remains entirely their own responsibility. EUROCONTROL does not guarantee a particular outcome of a certification process, nor does EUROCONTROL assume any liability for claims or damages sustained in that respect.

Executive Summary

This document provides guidance to support Air traffic Services Providers (ATSPs) and Communication, Navigation and Surveillance Providers (CNSPs) in the implementation of the Common Requirements (CRs) associated with the Single European Sky (SES) regulations

An overview of the guidance on a possible way for ANSPs to comply with the CRs is outlined below. The CRs are listed in accordance with the structure of the Commission regulation on CRs.

ANNEX I – General common requirements applicable to all ANSPs

Overview of the most important aspects of the CRs.	Overview of the EUROCONTROL's guidance for ANSPs
1. TECHNICAL AND OPERATIONAL COMPETENCE AND CAPABILITY	
An air navigation service provider shall be able to provide services in a safe, efficient, continuous and sustainable manner consistent with any reasonable level of overall demand for a given airspace. To this end, it shall maintain adequate technical and operational capacity and expertise.	This requirement is incorporated in the other CRs. Therefore, it is not necessary to address this requirement separately.
ATSP	ATSP should have a technical infrastructure in place that meets ECIP objectives (at least Pan-European and Multi-national if applicable). It is furthermore assumed that the sectorisation of the given airspace is made to meet requirements of safety and efficiency and to ensure that the acceptable work-load for controller is not exceeded.
2. ORGANISATIONAL STRUCTURE AND MANAGEMENT	
2.1 Organisational structure	
An air navigation service provider shall set up, manage and demonstrate that its organisational structure enables it to deliver the services required in a safe, efficient and continuous way, and to sustain that ability.	The ANSP must have documented its internal organisation with a level of detail relevant to the size and complexity of the organisation. This documentation shall reflect a clear and non ambiguous allocation of the responsibilities of the management personnel in charge of safety, quality, security, finance and human resources. Although not explicitly required, the documentation should provide also additional information on the main technical and operational functions, delegation of power and of signature, relationship and reporting lines inside the organisation and with outsourced/external activities.
	Evidence: Appropriate documentation.
2.2 Organisational management	
These requirements address the medium and short term planning of an organisation with regard to safety, quality and level of service and cost-effectiveness. They address also consistency with community requirements relevant for the development of infrastructure	A state-of-the-art business plan and annual plan that provide the ANSP strategy with regard to <ul style="list-style-type: none"> meeting the objectives defined along the relevant Key Performance Indicators;

Overview of the most important aspects of the CRs.	Overview of the EUROCONTROL's guidance for ANSPs
or other technology.	<ul style="list-style-type: none"> developing infrastructure or other technology consistent with the relevant Community Requirements.
	Evidence: Business Plan and Annual Plan
3. SAFETY AND QUALITY MANAGEMENT	
3.1 Safety management	
An ANSP shall manage the safety of all its external services in a systematic and structured way. In doing so, it shall establish formal interfaces with all stakeholders which may influence directly the safety of its services.	<p>The proposed approach should be made in consultation with the NSA and should identify the list of Stakeholders subject to this requirement, and formalise interfaces and procedures (e.g. Service Level Agreements</p>
	Evidence: Formal interfaces with these stakeholders in a way that ensure that decisions taken, that may impact safety, are clearly documented as well as the rationale for these decisions.
3.2 Quality management system	
<p>An air navigation service provider shall have in place at the latest [2 years after entry into force of this regulation] a quality management system which covers all air navigation services it provides according to the following principles.</p> <p>An EN ISO 9001 certificate, issued by an appropriately accredited organisation, covering the air navigation services of the provider shall be considered as a sufficient means of compliance.</p> <p>The ANSP shall accept to disclose to the NSA the documentation related to the certification, upon the latter's request.</p>	<p>There are two possible scenarios to address this requirement:</p> <p><u>Scenario 1:</u> An EN ISO 9001 certificate issued by an appropriately accredited organisation is available. This is a sufficient evidence that requirement is properly addressed.</p> <p><u>Scenario 2:</u> If no EN ISO 9001 certificate is held, the ANSP must implement a state-of-the-art quality management system (i.e. quality policy, quality assurance programme procedures, work procedures, job descriptions as well as documentation on the review of the quality management system).</p> <p>Evidence:</p> <p><u>Scenario 1:</u> A valid EN ISO 9001 certificate issued by an appropriately accredited organisation.</p> <p><u>Scenario 2:</u> Appropriate documentation supporting the existence of an appropriate quality management system.</p>
3.3 Operations manuals	
These requirements address the need for valid operations manuals relating to the provision of its services. In addition, the need for a well-defined process for the updated distribution of the manuals and communication of changes to the manuals is required.	ANSPs to have in place operations manuals in line with the ICAO Standards mentioned in the specific ANNEX for each ANSP; a quality management system addressing the maintenance and publication of the manuals satisfies this requirement.
4 SECURITY	
These common requirements address the definition and implementation of a security management system that ensures the security of facilities, data and personnel so as to prevent unlawful interference with the provision of services. Where appropriate, the security clearance of personnel is also to be addressed.	NSAs and ANSPs are also invited to make a "threat assessment". Therefore, the Security Management System comprises the security measures in place to ensure the continued performance of the ANSP and its ATM facilities to meet ATM service requirements in the current threat environment. These should be documented in a Security Manual.

Overview of the most important aspects of the CRs.	Overview of the EUROCONTROL's guidance for ANSPs
5 HUMAN RESOURCES	
<p>ANSPs shall employ appropriately skilled personnel to ensure the provision of its services in a safe, efficient, continuous and sustainable manner. In this context, it shall establish policies for the recruitment and training of personnel.</p>	<p>The definition of a human resources policy covering recruitment and training of the personnel addresses this requirement. For ATSP and CNSP, implementation of ESARR 5 as transposed in the national regulation should be considered as an acceptable means to comply with this requirement for ATCOs and Engineering and Technical personnel.</p>
6 FINANCIAL STRENGTH	
6.1 Economic and financial capacity	
<p>An air navigation service provider shall be able to meet its financial obligations.</p> <p>It shall use an appropriate cost accounting system.</p> <p>It shall demonstrate its ability through the annual plan as well as through balance sheets and accounts as practicable under its legal statute.</p>	<p>ANSPs must have in place accounts in line with the International Accounting Standards (IAS).</p> <p>Its Cost Accounting system should be established in accordance with the EUROCONTROL principles for en-route charges costs.</p> <p>Financial fitness is best demonstrated through an auditor statement that the company is 'a going concern' according to the auditor.</p>
6.2 Financial audit	
<p>This requirement addresses the need for regular audits by an independent auditor.</p>	<p>Audit reports documenting regular audits by an independent auditor are sufficient evidence.</p>
7 LIABILITY AND INSURANCE COVER	
<p>These requirements address the need for arrangements to cover liabilities arising from applicable law including the need for agreements to cover the allocation of liability among different service providers that avail themselves of the services of another air navigation service provider.</p>	<p>ANSPs must be able to demonstrate that they have arrangements in place to cover their liabilities arising from applicable law. The method employed to provide the cover shall be appropriate to the potential loss and damage in question, taking into account the legal status of the service provider and the level of commercial insurance cover available.</p> <p>These arrangements may be of a various nature and can be combined together. They must allow the ANSP to assume the financial consequences of its liabilities, as foreseen in applicable law and/or as required by the NSA. The arrangements must be documented in detail.</p> <p>The cover obligation set by the Common Requirements will not be applicable if it can be demonstrated that commercial insurance cover is not available.</p> <p>An ANSP availing itself of the services of another ANSP shall ensure that any buy-in or delegation of services is agreed in writing, that the agreements cover the allocation of liability between them and that the NSA has been notified. (In case of ATS or MET, the States concerned need to approve these arrangements).</p> <p>Evidence: Appropriate documentation.</p>

Overview of the most important aspects of the CRs.	Overview of the EUROCONTROL's guidance for ANSPs
8 QUALITY OF SERVICES	
8.1 Open and transparent provision of services	
<p>These requirements address the fact that the services are to be provided in an open and a non-discriminating manner. In addition, a customer consultation process taking place on a regular basis needs to be implemented.</p>	<p>The publication of the conditions to access to the service by normal means (AIP) and a formalised process for consultation with customers, as well as a means for handling of complaints address this requirement.</p> <p>Evidence: Appropriate company documents (e.g. Business Plan, Annual Report) where the commitment is taken to provide services in impartial and non-discriminatory way.</p>
8.2 Contingency plans	
<p>This common requirement addresses the need for the implementation of contingency plans.</p> <p>Contingency plans shall be in place one year after certification.</p>	<p>Contingency plans defining the appropriate procedures to be followed in events which result in significant degradation or interruption of services, as well as the means to ensure that the personnel are trained to follow these procedures address this requirement.</p> <p>Evidence: Contingency plans and training procedures (fall back training plans, exercises). Documentation concerning co-ordination adjacent units.</p>
9 REPORTING REQUIREMENTS	
<p>These requirements address the need for an annual report that covers the results of the assessment of the quality level of services provided, the results of the customer consultation process as well as an assessment of the actual results with regard to the goals defined in the short and medium term planning.</p>	<p>An annual report that provides the results of the assessment of the actual results with regard to the initial plans as well as the results of the customer consultation process addresses these requirements. It shall also cover operational performance and other significant activities and developments, in particular in area of safety. An annual report that provides the results of the assessment of the actual results with regard to the initial plans, as well as the results of the customer consultation process, addresses these requirements. It must also cover operational performance and other significant activities and developments, in particular in area of safety.</p> <p>In addition, the publication of the annual report in accordance with the national law is required.</p> <p>Evidence: The ANSP may use the existing Annual Report, along with the "PRU framework for best practice disclosure by ANSPs Annual reports" as a basis in their preparation of the Annual Report to the NSA due by the EC regulation, taking into account ANSP organisation and governance principles.</p>

ANNEX II - – Specific common requirements applicable to ATSPs

Overview of the most important aspects of the CRs.	Overview of the EUROCONTROL's guidance for ATSP
1 OWNERSHIP	
<p>These requirements deal with the need for informing the NSA about the legal status, major changes in the ownership structure, links with organisations not involved in the provision</p>	<p>This requirement may be adequately met by the provider of air traffic services, in particular by the provision:</p> <ul style="list-style-type: none"> - of law or decree having created the public or

Overview of the most important aspects of the CRs.	Overview of the EUROCONTROL's guidance for ATSP
<p>of air navigation services, major contracts as well as information about subsidiaries and joint undertakings. In addition, the obligation to prevent any situation of conflict of interests that could compromise the impartial and objective provision of its services is stated.</p>	<p>semi-public ANSP; - of an extract of the official companies Registry , for privatized or corporatised ANSPs; - of a list of shareholders representing 10 % or more of the total shareholding of the ANSP, and of any change to this list; - of a list of commercial contracts for the provision - or “buy-in” of services which account for more than 1% of its expected revenue; - of information on subsidiary companies and joint undertakings.</p>
2 OPEN AND TRANSPARENT PROVISION OF SERVICES	
<p>This requirement is related to Annex I, part 8.1 and is only applicable if a Member State decides to organise the provision of specific ATS services in a competitive environment. This requirement addresses the need for the member state to take appropriate measures to assure that the ATSP neither engages in conduct that would have as its object or effect the prevention, restriction or distortion of competition, nor engage in conduct that constitutes an abuse of a dominant position in accordance with applicable national and Community law.</p>	<p>This requirement addresses in a first row a Member State. ATSP shall refrain from activities, business styles and methods of unfair competition in conflict with the spirit and rules of the EC law. Evidence: Results of the customer consultation process can be used as evidence to assess whether this requirement is met.</p>
3 SAFETY OF SERVICES	
<ul style="list-style-type: none"> - Safety Management System - Safety Requirements for Risk Assessment and Mitigation - Hazard Identification and Severity Assessment - Safety Requirements for Engineering and Technical Staff 	<p>As a general principle, compliance with ESARR 3 and 4 and their acceptable means of compliance formally assessed and recognised by the SRC or the NSA, should be considered sufficient to meet the safety-related common requirements specifically intended to transpose ESARRs into Community law;</p> <p>In relation to the obligations established in the last paragraph of Annex II, Section 3.1.2 of the Common Requirements with regards the reporting and assessment of safety occurrences, full compliance with all the provider's obligations derived from the national implementation of ESARR 2, Council Directive 94/56/EC and Directive 2003/42/EC should be considered sufficient to meet those obligations;</p> <p>In relation to the obligations established in the first requirement of Annex II, Section 3.1.2 of the Common Requirements with regards to ensuring personnel are properly licensed if so required and satisfy applicable medical requirements, full compliance with all the provider's obligations established in ESARR 5 Sections 5.1 and 5.2 should be sufficient to meet those obligations.</p>
4 WORKING METHODS AND OPERATING PROCEDURES	

Overview of the most important aspects of the CRs.	Overview of the EUROCONTROL's guidance for ATSP
This requirement addresses the need for providing evidence that the working methods and operating procedures are compliant with relevant ICAO standards (Annex 2, Annex 10 - Volume 2, and Annex 11) and that any deviations were published by ICAO.	This is to prove that methods and procedures are compliant with relevant ICAO Standards or with a difference from the Standard duly notified to ICAO by the State concerned and which are then published in a supplement to the ICAO Annex and in the State's AIP.
	Evidence: Result of review presented to NSA in order to keep NSA fully updated.

ANNEX V – Specific common requirements applicable to CNSPs

Overview of the most important aspects of the CRs.	Overview of the EUROCONTROL's guidance for CNSP
1 TECHNICAL AND OPERATIONAL COMPETENCE AND CAPABILITY	
These requirements address the need for ensuring that the required level of quality of service with regard to availability, continuity, accuracy and integrity are met.	<p>In the case of a CNSP, this means, inter-alia, to have a technical infrastructure in place that meets relevant ECIP objectives (at least Pan-European and Multi-national if applicable). In addition a provider of communication, navigation or surveillance services shall ensure the availability, continuity, accuracy and integrity of its services.</p> <p>In the Guidance material, the appropriate requirements are addressed for each type of communication, navigation and surveillance systems:</p> <ul style="list-style-type: none"> • Ground/ Ground ATS Voice Communications; • Air/ Ground ATS Voice and Data Communications; • Ground/ Ground ATS Data Communications; • Navigation Services; • Surveillance Services.
2 SAFETY OF SERVICES	
The requirement refers to Annex II, part 3 on the safety of services.	Refer to Guidance provided for ATSP (in Part B of this document)
3 WORKING METHODS AND OPERATING PROCEDURES	
This requirement addresses the need for providing evidence that the working methods and operating procedures are compliant with relevant ICAO standards: Annex 10: (Volume I - V) and that any deviations were published by ICAO.	<p>This is to prove that methods and procedures are compliant with relevant ICAO Standards or with a difference from the Standard duly notified to ICAO by the State concerned and which are then published in a supplement to the ICAO Annex and in the State's AIP.</p> <p>Evidence that compliance to relevant volumes of ICAO Annex 10 has been assessed</p>

Scope

This document presents a possible approach for Air Traffic Services Providers (ATSPs) and Communication, Navigation and Surveillance Providers (CNSPs) to put in place a system which complies with the common requirements (CRs).

It is intended for guidance and should not be understood as a legal document setting out how the implementation of the CR should be achieved.

This guidance material is also intended to assist providers of all sizes in understanding their obligations under the Common Requirements. However implementation by providers will often need to be adapted to the varying sizes and types of service provider. Likewise the appropriate regulatory response from NSAs may differ for this reason.

ANSPs can adopt their own model of implementation while making use as far as possible of their relevant existing practices.

This guidance material may also be used as a basis to support discussion between the ANSP and its NSA to design the details of the certification process. It is not intended to replace such discussion.

This document contains reference to:

- EC Regulations and Directives;
- ICAO Standards and other documentation;
- EUROCONTROL decisions and regulatory material (where relevant);
- ISO documentation
- Additional Guidance Material as necessary.

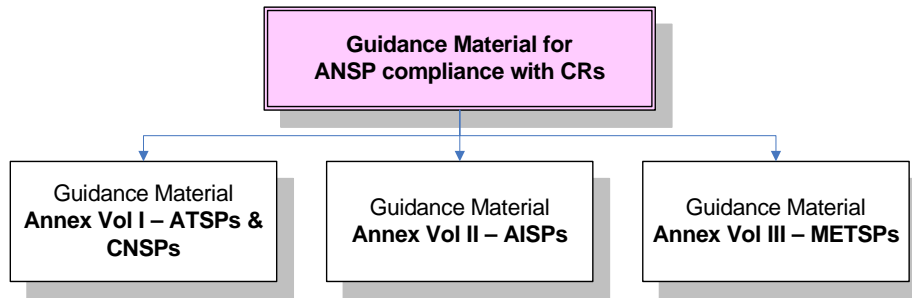
SEGIS documentation is made available for the sole purpose of review or use by EUROCONTROL and ECAC Member States.

Structure of Guidance material

Introduction

To support ANSPs in the implementation of the CRs, EUROCONTROL has produced “Guidance Material for ANSPs compliance with Common Requirements”.

The “Guidance Material for ANSP compliance with Common requirements” is split into 3 different volumes for each category of Air Navigation Service Provider.



ANSP: Air Navigation Services Provider
 ATSP: Air Traffic Services Provider
 AISP: Aeronautical Information Services Provider

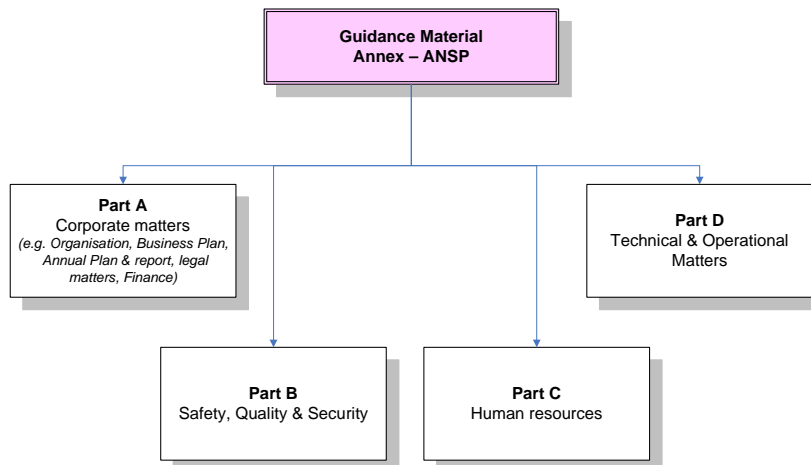
CNSP: Communication, Navigations and Surveillance Services Provider
 METSP: Meteorological Services Provider

Structure of Guidance Material for ANSP compliance with CRs

To facilitate the use of this material by the ANSP, the guidance material is organised into 4 different Parts covering the 4 main functions in the ANSP organisation:

- Part A: Corporate matters;
- Part B: Quality, Safety and Security;
- Part C: Human resources
- Part D: Technical and Operational matters for ATSP;
- Part E: Technical and Operational matters for CNSP.

To allow easy use of the material, the different Parts are designed as “stand-alone” documents. They can be read and used separately by those in charge of the relevant areas in the ANSP (e.g. Corporate, Finance, Safety and Quality). Only requirements relevant to the subject matter are addressed in the specific parts of the document.



Each Volume is structured on the basis of main functions of an ANSP

Structure of one Volume

Mapping of Requirements within Document

The mapping of the CRs against the relevant Part of this document is presented below.

Common Requirements Regulation (Annexes)	Part A Corporate Matters	Part B Safety, Quality, Security	Part C Human Resources	Part D & E Technical & Operational
ANNEX I : GENERAL REQUIREMENTS FOR THE PROVISION OF AIR NAVIGATION SERVICES				
1. Technical and operational competence and capability				
2. Organisational structure and management				
3. Safety and quality management				
4. Security				
5. Human Resources				
6. Financial strength				
7 Liability and insurance cover				
8. Quality of services				
8.1. Open and transparent provision of services				
8.2. Contingency plans				Part D
9. Reporting requirements				
ANNEX II : SPECIFIC REQUIREMENTS FOR THE PROVISION OF AIR TRAFFIC SERVICES				
1. Legal status, links with organisations, prevention of conflict of interests				
2. Open and transparent provision of services				
3. Safety of services			For Engineering & Technical personnel	
4. Working methods & Operating procedures				Part D
ANNEX V : SPECIFIC REQUIREMENTS FOR THE PROVISION OF CNS SERVICES				
1. Technical and Operational Competence and capability				Part E
2. Safety of services			For Engineering & Technical personnel	
3. Working methods & Operating procedures				Part E

Traceability of requirements

The requirements are given “in their full text” quoted from the EC regulation. To allow an easy traceability between the requirements and the EC regulation, requirements are identified by a specific numbering as described below:

- Identification of entity responsible to meet the requirement: ANSP (General requirements) or ATSP (Specific requirements) in this document;
- CR: Applicable EC regulation on Common Requirements for the provision of ANS
- Reference to the applicable article or paragraph. Where the requirement is in an Annex the number is preceded by “A”.

Additional breakdown, if the article/paragraph is to be split for analysis:

- Reference to a bullet (a), (b), (c) (if bullet is existing in the text of the EC regulation)
- Reference to the paragraph: example “para 2” for 2nd paragraph
- If there is a further need to break down the requirement in sub-requirements, a sequence number is added.

Examples:

- ANSPCRA1.3.2 – para 3 -2: Common Requirement (CR) applicable to ANSP (ANSP), Annex 1 3.2 (A1.3.2), 3rd paragraph 2nd part (para 3- 2)

Presentation of Guidance Information

It is important to note that the Guidance material provided is a possible basis for discussion between the ANSP and its NSA to agree on the details of the certification process. It does not substitute to this bi-lateral discussion.

As far as possible, depending on the matters addressed in the analysed CRs, this material attempts to address 4 different aspects:

1. **Analysis of the requirements** - analyses the significant points of the requirements providing the rationale of the “criteria” and “A way to comply”.
2. **Criteria** - is an attempt to define the criteria to be satisfied by the ANSP to meet the requirement.
3. **A way to comply** - is a proposed approach to implement the requirement and to meet the criteria, mainly comprising the appropriate reference documentation. *This is not the only way to implement the Common requirements and ANSPs have full freedom to use alternate ways while making use of existing practices, as far as practicable.*
4. **Evidence** – provides indications of the:
 - documentation that could be referred to or provided by the Service provider to the NSA, along with its application to Certification (organisation exposition document);
 - evidence that can be assessed by the NSA during its on-site audit visits to verify the ANSP’s compliance with the requirements.

When necessary, additional information is provided. However, such information should not be considered or understood as introducing additional requirements.

Certification of ANSPs

The provision of ANS within the EU will become subject to certification by NSAs 12 months after the publication of the CR in the Official Journal. An NSA shall examine the compliance of an ANSPs with the CRs, subject to possible derogations prior to issuing a certificate.

A certificate for the provision of ANS, not subject to derogation, will be recognised across the Community. When a derogation has been granted by the NSA, the certificate should contain the conditions that reflect the nature and the scope of the derogation. In the latter case the ANSP elects not to avail itself of the opportunity to provide cross border services and waives the right to mutual recognition of its certificate within the SES.

ANSPs obligations with regard to certification

Applications for certification have to be submitted to the national supervisory authority of the Member State where the applicant has its principal place of operation and, if any, its registered office (SPR 7(2)).

An ANSP shall comply with the common requirements no later than the time at which the certificate is issued (CR 3(3)).

The ANSP must provide all the relevant evidence to demonstrate compliance with the applicable common requirements at the request of the national supervisory authority. The air navigation service provider may make full use of existing data (CR 5(1)).

Derogation

Eligibility criteria for Derogations

The EC Regulation on Common Requirements offers the possibility to an NSA to grant specific derogations to applicants meeting the eligibility criteria listed below, commensurately with their contribution to air traffic management in the airspace under the responsibility of the Member State:

ATSP eligible for derogation	Service only to one or more of the following categories: <ul style="list-style-type: none"> • General aviation • Aerial work • Commercial air transport with aircraft limited to • less than 10 tonnes of max. take-off mass or • less than 20 passenger seats • commercial air transport with less than 10 000 movements per year, regardless of the maximum take-off mass and the number of passenger seats, “movements” being counted as the sum of take-offs and landings and calculated as an average over the previous three years
AFIS eligible for derogation	Operating regularly not more than one working position
Other ANSP(*) eligible for derogation	Gross annual turnover of EUR 1 million or less in relation to the services it provides or plans to provide

Table 0-1 Eligibility criteria for derogation

(*) applicable to CNSP

Where, for practical reasons, an ANSP is unable to provide evidence that it meets those criteria, a NSA may accept analogous figures or forecasts in relation to the relevant ceilings (i.e. for commercial aircraft: maximum take-off mass, number of passenger seats and number of movements per year; for other air navigation service providers, gross annual turn over).

Potential Scope of the Derogation

When confirmed that the ANSP fulfils the eligibility criteria, the NSA may grant a derogation on compliance with the CRs within the limit presented in the table below.

Common Requirement	ATSP eligible for derogation	AFIS eligible for derogation	METP, AISP or CNSP eligible for derogation
Annex I, part 1 – Technical and Operational competence and capability	No derogation	No derogation	No derogation
Annex I, part 2 – Organisations structure and management	Yes	Yes	Yes
Annex I, part 3.1 – safety management	No derogation	No derogation	No derogation
Annex I, part 3.2 and 3.3	Yes	Yes	Yes
Annex I, part 4 - Security	Yes	Yes	Yes
Annex I, part 5 – Human Resources	No derogation	No derogation	No derogation
Annex I, part 6 – Financial strength	Yes	Yes	Yes
Annex I, part 7 – Liability and insurance cover	Yes	Yes	Yes
Annex I, part 8.1 – Open and transparent provision of services	No derogation	No derogation	No derogation
Annex I, part 8.2 – Contingency plans	Yes	Yes	Yes
Annex I, part 9 – Reporting requirements	Yes	Yes	Yes

Table 0-2 Potential Scope of Derogation

In addition to the derogations referred above eligible AFIS may be granted additional derogation related to the following requirements of ANNEX II, part 3:

- Safety management responsibility as well as external services and supplies (part 3.1.2);
- Safety surveys (part 3.1.3);
- Safety requirements for risk assessment and mitigation with regard to changes (part 3.2).

No derogations can be granted related to specific requirements for METSP, AISP and CNSP as listed respectively in Annexes III, IV and V.

Conditions attached to Certificates

Certificates shall specify the rights and obligations of ANSPs, including non-discriminatory access to services for airspace users, with particular regard to safety. Such conditions shall be objectively justified, non-discriminatory, proportionate and transparent.

Certification may be subject, inter alia, to the conditions defined in Article 6.4 and Annex II of the SPR.

In addition, in case of derogation and in conformity with Annex II of SPR, a national supervisory authority shall:

- specify the nature and the scope of the derogation in the conditions attached to the certificate by indicating its legal basis;
- limit the validity of the certificate in time;
- monitor whether the air navigation service providers continues to qualify for the derogation.

ANSPs obligations with regard to derogation

When applying for derogation, the ANSP is required to submit simultaneously to the NSA the appropriate evidence regarding the relevant qualifying criteria.

Consequences of Derogations on recognition of the certificate

By way of derogation, the air navigation service provider elects not to avail itself of the opportunity to provide cross-border services and waives the right to mutual recognition of certificate within the SES.

It may, in those circumstances, apply for a certificate which is limited to the airspace under the responsibility of the Member State referred to in SPR Article 7(2).

ANSPs obligations with regard to on-going compliance

An ANSP that has a certificate must notify the NSA of:

- planned changes to its provision of services which may affect its compliance with the applicable CRs or with the conditions attached to the certificate (CR 5(2));
- planned safety-related changes to the provision of ATS (CR 5(3)).

In accordance with SPR 2(2), ANSPs must facilitate inspections and surveys by the NSA or by a recognised organisation acting on the latter's behalf, including site visits and visits without prior notice (CR 6 (1)).

Certification of Military ANSPs

Legal source

The requirement for military ANSPs to comply is detailed in SPR Article 7 “Certification of air navigation service providers

1. The provision of all air navigation services within the Community shall be subject to certification by Member States.

(....)

5. “Notwithstanding paragraph 1, Member States may allow the provision of air navigation services in all or part of the airspace under their responsibility without certification in cases where the provider of such services offers them primarily to aircraft movements other than general air traffic. In those cases, the Member State concerned shall inform the Commission and the other Member States of its decision and of the measures taken to ensure maximum compliance with the common requirements.”

Analysis and consequences on applicability to Military ANSPs

Within the EC regulations (“Service provision” and “Common requirements”), there is no obligation for the certification of Military ANSP so long as these organisations provide services primarily or exclusively to military OAT. However, Member States are required to ensure maximum compliance with the CR.

However, if military ANSPs are providing services primarily to GAT, certification by the NSA is required.

Safety oversights of Military ANSPs

However, it should be noted that in accordance with ESARR1, States must ensure that Safety oversight is specifically exercised by NSA as part of the supervision of regulatory requirements applicable to the provision of ATM services to GAT. This is fully applicable to Military ANS providers as soon as they provide services to GAT.

Part A: Corporate Matters

Explanatory note

This part of the guidance document covers the Corporate matters relevant to the functions within the ANSP that deal with:

- organisation structure and management;
- strategic Business Plan, Annual Plan and Annual report;
- finance;
- legal matters such as Liability and Insurance cover;
- the open and transparent provision of Services.

Scope of the requirements

The requirements are listed in Annex I “General requirements for the provision of air navigation services” and in Annex II “: Specific requirements for the provision of air traffic services”. The detailed mapping of the requirements follows this Annex.

ANNEX I

GENERAL REQUIREMENTS FOR THE PROVISION OF AIR NAVIGATION SERVICES

2. ORGANISATIONAL STRUCTURE AND MANAGEMENT

2.1. Organisational structure

An air navigation service provider shall set up and manage its organisation according to a structure that supports the safe, efficient and continuous provision of services.

ANSPCRA1.2.1

The organisational structure shall define:

- (a) the authority, duties and responsibilities of the nominated post holders, in particular of the management personnel in charge of safety, quality, security, finance and human resources related functions;
- (b) the relationship and reporting lines between different parts and processes of the organisation.

2.2. Organisational management

An air navigation service provider shall produce a business plan covering a minimum period of five years. The business plan shall:

*ANSPCRA1.2.2
Para 1*

- (a) set out the overall aims and goals of the air navigation service provider and its strategy towards achieving them in consistency with any overall longer term plan of the provider and with relevant Community requirements relevant for the development of infrastructure or other technology;
- (b) contain appropriate performance objectives in terms of quality and level of service, safety and cost-effectiveness.

ANSPCRA1.2.2
Para 2-

An air navigation service provider shall produce an annual plan covering the forthcoming year which shall specify further the features of the business plan and describe any changes to it.

The annual plan shall cover the following provisions on the level and quality of service such as the expected level of capacity, safety and delays to flights incurred as well as on financial arrangements:

- (a) information on the implementation of new infrastructure or other developments and a statement how they will contribute to improving the level and quality of services;
- (b) indicators of performance against which the level and quality of service may be reasonably assessed;
- (c) the service provider’s expected short-term financial position as well as any changes to or impacts on the business plan.

6. FINANCIAL STRENGTH

6.1. Economic and financial capacity

ANSPCRA1.6.1

An air navigation service provider shall be able to meet its financial obligations, such as fixed and variable costs of operation or capital investment costs. It shall use an appropriate cost accounting system. It shall demonstrate its ability through the annual plan as referred to in part 2.2. of this Annex as well as through balance sheets and accounts as practicable under its legal statute.

6.2. Financial audit

ANSPCRA1.6.2

In accordance with article 12(2) of Regulation (EC) No 550/2004, an air navigation service provider shall demonstrate that it is undergoing an independent audit on a regular basis.

7. LIABILITY AND INSURANCE COVER

ANSPCRA1.7
Para 1 -

An air navigation service provider shall have in place arrangements to cover its liabilities arising from applicable law.

ANSPCRA1.7
Para 2 -

The method employed to provide the cover shall be appropriate to the potential loss and damage in question, taking into account the legal status of the air navigation service provider and the level of commercial insurance cover available.

ANSPCRA1.7
Para 3 -

An air navigation service provider which avails itself of services of another air navigation service provider shall ensure that the agreements cover the allocation of liability between them.

QUALITY OF SERVICES

8.1. Open and transparent provision of services

ANSPCRA1.8.1

An air navigation service provider shall provide its services in an open and transparent manner. It shall publish the conditions of access to its services and establish a formal consultation process with the users of its services on a regular basis, either individually or collectively, and at least once a year.

An air navigation service provider shall not discriminate on grounds of nationality or identity of the user or the class of users in accordance with applicable Community law.

9. REPORTING REQUIREMENTS

An air navigation service provider shall be able to provide an annual report of its activities to the relevant national supervisory authority. This report shall cover its financial results without prejudice to Article 12 of Regulation (EC) No 550/2004, as well as its operational performance and any other significant activities and developments in particular in the area of safety.

The annual report shall include as a minimum:

- an assessment of the level and quality of service generated and of the level of safety provided;
- the performance of the service provider compared to the performance objectives established in the business plan, reconciling actual performance against the annual plan by using the indicators of performance established in the annual plan;
- developments in operations and infrastructure;
- the financial results, as long as they are not separately published in accordance with article 12(1) of the service provision regulation;
- information about the formal consultation process with the users of its services;
- information about the human resources policy.

*ANSPCRA1.9
Para 1 &2*

The air navigation service provider shall make the content of the annual report available to the public under conditions set by the national supervisory authority in accordance with national law.

*ANSPCRA1.9
Para 3 -*

ANNEX II

SPECIFIC REQUIREMENTS FOR THE PROVISION OF AIR TRAFFIC SERVICES

1. A provider of air traffic services shall make explicit to the national supervisory authority referred to in Art. 7(2) of Regulation (EC) No 550/2004:

- its legal status, its ownership structure and any arrangements having a significant impact on the control over its assets.
- any links with organisations not involved in the provision of air navigation services, including commercial activities in which it is engaged either directly or through related undertakings, which account for more than 1 % of its expected revenue. Furthermore, it shall notify any change of any single shareholding which represents 10 % or more of its total shareholding.

A provider of air traffic services shall take all necessary measures to prevent any situation of conflict of interests that could compromise the impartial and objective provision of its services.

*ATSPCRA2.1
Para 1 -*

*ATSPCRA2.1
Para 2*

2. OPEN AND TRANSPARENT PROVISION OF SERVICES

In addition to the provision of Annex I, part 8.1 and where a Member State decides to organise the provision of specific ATS services in a competitive environment, a Member State may take all appropriate measures to ensure that providers of these specific air traffic services shall neither engage in conduct that would have as its object or effect the prevention, restriction or distortion of competition, nor shall they engage in conduct that amounts to an abuse of a dominant position in accordance with applicable national and Community law.

ATSPCRA2.2

ORGANISATIONAL STRUCTURE AND MANAGEMENT (Annex I . 2)

ORGANISATIONAL STRUCTURE (ANNEX I-2.1)

<p>Req. Number/Source</p> <p>ANSPCRA1.2.1</p>	<p>An air navigation service provider shall set up and manage its organisation according to a structure that supports the safe, efficient and continuous provision of services.</p> <p>The organisational structure shall define:</p> <ul style="list-style-type: none"> (a) the authority, duties and responsibilities of the nominated post holders, in particular of the management personnel in charge of safety, quality, security, finance and human resources related functions; (b) the relationship and reporting lines between different parts and processes of the organisation.
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The ANSP must have documented its internal organisation with a level of detail relevant to the size and complexity of the organisation. This document shall reflect a clear and non ambiguous allocation of the authorities, duties and responsibilities of the management personnel in charge of safety, quality, security, finance and human resources. Although not explicitly required, it is recommended that similar information be given for the providers of the main technical and operational functions, as well as for their relationship with the management.

Delegation of power and of signature shall be documented.

The allocation of responsibilities between the different job holders shall be documented through job descriptions. It shall be complemented by an organisational chart presenting the relationship and reporting lines between the different parts and processes of the organisation.

The ANSP shall also provide information on its outsourced / external activities and document the legal framework for these activities (e.g. contracts).

Additional information on the status of the staff (civil servant/ private law employee) and on the potential liability of the ANSP for the damage caused by its staff shall also be specified.

The document describing the organisation can be used as evidence for the certification.

Additional information on Safety:

Compliance with ESARR 3 would be an enabler of meeting the “safe provision of services”. An established Safety Management System can be derived by using the content and applying the procedures laid down in the EUROCONTROL “Generic Safety Management Manual”.

For the personnel in charge of safety, the ANSP may use of the generic job descriptions contained in the EUROCONTROL Generic Safety Management Manual– Part Two, Chapter 4 Safety Organisation and Chapter 5 Safety Responsibilities and Accountabilities.

BUSINESS PLAN (ANNEX I-2.2)

<p>Req. Number/Source</p> <p>ANSPCRA1.2.2 Para 1</p>	<p>An air navigation service provider shall produce a business plan covering a minimum period of five years. The business plan shall:</p> <ul style="list-style-type: none"> (a) set out the overall aims and goals of the air navigation provider and its strategy towards achieving them in consistency with any overall longer term plan of the provider and with relevant Community requirements relevant for the development of infrastructure or other technology; (b) contain appropriate performance objectives in terms of quality and level of service, safety and cost-effectiveness.
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There is no “standard” Business Plan for ATM and ANSPs. There exist many schools and methods for developing a Business Plan on the market. Hence guidance can only be given on the general approach of a Business Plan.

Generally, the Business Plan should contain or refer to:

- the ANSP’s Vision, Mission and Values;
- a description of the Business Context that provides information on the governing and managerial framework the ANSP operates in;
- a description of the Environmental Context that provides an analysis on PEST elements (Political, Economic, Social and Technological), and contains a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats);
- the Business strategies;
- the long-term goals (5 years) and the short term goals (1-2 years);
- the activities for the short term goals – It will be the basis of the Annual Plan-;
- the human and financial resources and investments;
- the organisational issues/structure;
- the development plans of infrastructure and technology (in accordance with relevant Community and EUROCONTROL requirements (e.g. European Convergence and Implementation Plan).

ANSPs should ensure that their Business Plan presents integrated plans linking technical/operational projects to associated human and financial resources and investments.

As part of the Business Plan, ANSPs should explicitly set their individual key performance objectives after consultation with stakeholders and endorsement of the State/NSA and/or board (i.e. in agreement with their own governance channel). Typically, such key performance objectives should be set out for a medium term period covering the life span of the Business Plan (e.g. 5 years).

To define the appropriate performance objectives, the ATSP may use:

- For **Quality of service (i.e. capacity and delays)**, the information on Expected Capacity over the next 5 years and delays to flights exchanged with the EUROCONTROL Capacity Enhancement Function within the LCIP (e.g. capacity En-route and Terminal);
- For **Safety**, the usage of “EUROCONTROL Generic Safety Management Manual” – **Part One, Chapter 3 Safety Indicators and Targets for Reporting** allowing ANSPs to derive operational safety performance indicators.

Note: A task force is managed by the Agency to develop inter-alia appropriate Safety indicators. A recommendation will be forwarded to the Eurocontrol Provisional Council in November 2005.

- For **Cost effectiveness**, no generally agreed indicators, targets or objectives are available at European level yet. However, it is advised that ANSP refer to the Performance Review Report (PRR) and ATM Cost-Effectiveness (ACE) reports where such indicators exist.

Note: A pilot exercise with several ANSPs on Cost-effectiveness En –route, is in progress within the context of the LCIP.

The Business Plan is to be used as evidence for the certification. Reflecting the importance of a formal consultation process in the Common Requirements (Annex I, para 8.1), providers and NSAs may rely on this process to ensure a proper scrutiny of the information in the business plan, annual plan and annual reports. The NSA would in such circumstances check that the required information has been provided in these documents. When relevant, the consultation process may provide the basis of the qualitative assessment of its content.

ANNUAL PLAN (ANNEX I-2.2)

<p>Req. Number/Source</p> <p>ANSPCRA1.2.2 para 2</p>	<p>An air navigation service provider shall produce an annual plan covering the forthcoming year which shall specify further the features of the business plan and describe any changes to it.</p> <p>The annual plan shall cover the following provisions on the level and quality of service such as the expected level of capacity, safety and delays to flights incurred as well as on financial arrangements:</p> <ul style="list-style-type: none"> (a) information on the implementation of new infrastructure or other developments and a statement how they will contribute to improving the level and quality of services; (b) indicators of performance against which the level and quality of service may be reasonably assessed; (c) the service provider’s expected short-term financial position as well as any changes to or impacts on the business plan.
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The Annual Plan should detail the relevant elements of the Business Plan for the forthcoming year. Any change to or impacts on the Business Plan shall be presented.

The Annual Plan shall cover performance target settings and capacity plan, predicted performance in terms of safety and delays, new ATM projects and their impact on quality of service, expected financial strength.

ANSPs should ensure that their Annual Plan presents integrated plans linking national and regional technical/operational projects and their impact on capacity, delays and safety. Elements of the Local Convergence Implementation Plan can be used as a basis.

It is recommended that the Annual Plan addresses the association of these projects with human and financial resources and investments.

Special attention should be paid to the Key Performance Indicators (KPI) for Quality and Level of services and Safety. These should be derived from the performance objectives defined in the Business Plan.

The information on the service provider’s expected short term financial position in the Annual Plan should serve two purposes:

1. demonstrate the service provider’s ability to meet its financial obligations (fixed and variable costs of operation and capital investment costs) (cf. ANSPCRA 1.6.1),
2. present the relevant forecast costs and income of the different services provided per Business Area (En-route ANS, Terminal ANS and other non-ANS services) and demonstrate that other non-ANS activities do not put at risk the provision of ANS. For this purpose, the service provider shall use an appropriate cost-accounting system (cf. ANSPCRA 1.6.1).

Likewise the Business Plan (refer above), ANS providers and NSAs may rely on the formal consultation process to ensure a proper scrutiny of the information in the Annual plan. The NSA would in such circumstances check that the required information has been provided in the document. When relevant, the consultation process may provide the basis of the qualitative assessment of its content.

FINANCIAL STRENGTH (Annex I – 6)

ECONOMIC AND FINANCIAL CAPACITY (ANNEX I - 6.1)

Req. Number/Source	An air navigation service provider shall be able to meet its financial obligations, such as fixed and variable costs of operation or capital investment costs. It shall use an appropriate cost accounting system. It shall demonstrate its ability through the annual plan as referred to in part 2.2. of this Annex as well as through balance sheets and accounts as practicable under its legal statute.
ANSPCRA1.6.1	

Balance Sheet and Accounts

According to article 12(1) of Regulation (EC) No 550/2004, Air navigation service providers, whatever their system of ownership or legal form, shall draw up, submit to audit and publish their financial accounts. These accounts shall comply with the international accounting standards adopted by the Community. Where, owing to the legal status of the service provider, full compliance with the international accounting standards is not possible, the provider shall endeavour to achieve such compliance to the maximum possible extent.

Annual accounts are drafted in accordance with certain accounting principles. Often, (national) General Accepted Accounting Principles (GAAP) are used. The most well known accounting principles are the International Accounting Standards, which are being replaced by International Financial Reporting Standards (IFRS). The Community has adopted both IAS and IFRS.

For International Accounting Standards (IAS), the ANSP may refer to the website: www.iasb.org where abundant information is available on standards and their interpretations.

Standards issued by the International Accounting Standards Board are designated International Financial Reporting Standards (IFRS). Standards originally issued by the Board

of the International Accounting Standards Committee (1973-2001) continue to be designated International Accounting Standards (IAS).

Interpretations are prepared by the International Financial Reporting Interpretations Committee (IFRIC) (formerly the Standing Interpretations Committee (SIC)) to give authoritative guidance on issues that are likely to receive divergent or unacceptable treatment, in the absence of such guidance. The Preface to International Financial Reporting Standards makes it clear that IFRS include IAS and Interpretations. IAS 1 Presentation of Financial Statements (as revised in 2003) states that "Financial statements shall not be described as complying with IFRS unless they comply with all the requirements of IFRS".

Cost-Accounting

According to article 12(3) of Regulation (EC) No 550/2004, when providing a bundle of services, air navigation service providers shall, in their internal accounting, identify the relevant costs and income for air navigation services, broken down in accordance with EUROCONTROL’s principles for establishing the cost-base for route facility charges and the calculation of unit rates and, where appropriate, shall keep consolidated accounts for other, non-air-navigation services, as they would be required to do if the services in question were provided by separate undertakings.

In any case, the service provider’s cost-accounting system should be established in a way to identify the cost items in accordance with the EUROCONTROL’s principles referred to above, and this for each activity/Business Area (En-route ANS, Terminal ANS and other non-ANS services). Reporting along such breakdown is also likely to be foreseen in the forthcoming ‘Common Charging Scheme for Air Navigation Services’ on the basis of the certified accounts for the actual costs and in accordance with the Business Plan for the forecast costs. Such reporting would be used to support the consultation process with the users of air navigation services.

Air navigation service providers should also provide a description of the methodology used for allocating the costs to the different air navigation services and to the different charging zones (this requirement is also likely to be foreseen by the forthcoming ‘Common Charging Scheme for Air Navigation Services’ with a view to supporting the consultation process with the users of air navigation services).

Demonstration of the service provider’s ability to meet its financial obligations

Financial fitness will best be demonstrated through the ANSP (or the wider company or parent company if the ANSP is one element of a wider business) undergoing an independent financial audit. The process of financial audit itself demonstrates that, in the view of the auditor, the company is ‘a going concern’. If this were not the case, the auditor would be compelled to include a statement highlighting any financial difficulties. This process, combined with the appropriate sharing of information contained within the annual plan with the relevant stakeholders, is considered sufficient to meet this requirement.

FINANCIAL AUDIT (ANNEX I - 6.2)

<p>Req. Number/Source ANSPCRA1.6.2</p>	<p>In accordance with article 12(2) of Regulation (EC) No 550/2004, an air navigation service provider shall demonstrate that it is undergoing an independent audit on a regular basis.</p>
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The audit is typically conducted by an independent auditor and in accordance with audit standards such as the (national) Generally Accepted Audit Standards (GAAS) or the International Standards on Auditing (ISA).

The ANSP shall regularly undergo an independent audit, either by a contracted external accredited auditor or in case of a State organisation by independent bodies which can undertake financial audits. An audit every year with a financial year ending at the end of the year (31/12) is recommended.

It is often also a legal requirement to publish an Audit report.

According to article 12(5) of Regulation (EC) No 550/2004, Member States shall designate the competent authorities that shall have a right of access to the accounts of service providers that provide services within the airspace under their responsibility.

Evidence that the requirement is met could be provision of the audit report to the designated authorities. The report should include the confirmation by the auditor that accounts comply with the standards adopted by the Community or, if compliance not achieved - owing to legal status of ANSP, explain where is non-compliance and why.

LIABILITY AND INSURANCE COVER (Annex I -7)

Preamble of the draft Commission Regulation on common requirements for the provision of air navigation services, Recital (15):

- (15) **Different national arrangements as to liability should not prevent an air navigation service provider from entering into agreements on the cross-border provision of services, once they have set up arrangements to cover losses for damages arising from liabilities under the applicable law. The method employed should follow national legal requirements.** Member States, which allow the provision of air navigation services in all or part of the airspace under their responsibility without certification in accordance with Regulation (EC) No 550/2004 should cover the liabilities of those providers.

Req. Number/Source ANSPCRA1.7 Para 1	An air navigation service provider shall have in place arrangements to cover its liabilities arising from applicable law.
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The liabilities of the ANSP are difficult to define in advance: they depend on the applicable legal regime, which may change according to the situation and status of the ANSP as well as of the potential damage. The international character of the damages resulting from the provision of air navigation services may involve the competence of foreign courts and applicability of foreign laws.

The ANSP should at least comply with the requirements of its national law(s).

The ANSP may be subject to contractual and third party liability for the air navigation service it provides. Subject to each national law applicable to the employment relation, the ANSP may also be subject to vicarious liability. Article 1 of the Regulation on common requirements (CRs) provides that the requirements do not apply to activities other than the provision of air navigation services pursued by the provider.

Since article 7.1 of the CR refers to the necessity to cover the liabilities of the ANSP in general, it is recommended that all activities associated to the provision of air navigation services are covered, and not only those directly related to the operational tasks.

The activities of the ANSP may generate various types of damages: death or bodily injury, loss or damage to property including consequential loss arising from such loss or damage, loss or damage arising from a material interruption of the services in case of fault or negligence. The CR do not require explicitly that the ANSP be covered for all these types of damages, but ANSPs should be aware that even in the absence of coverage, they may be liable for such damages, if provided for under their national law. In such circumstances, the ANSP should if possible be covered.

The ANSP should be able to face the financial consequences of its liabilities: by concluding commercial insurance policies, by being its own insurer, by enjoying a State guarantee, by establishing a Fund, or any other equally suitable mechanism; the total coverage may be ensured by one arrangement, or by a combination thereof. The ANSP should be free to choose its arrangements, provided that the total coverage is appropriate (see following paragraph). If the ANSP chooses to limit the amount of its insurance coverage, the method to cover additional liabilities over this amount up to the appropriate level should be documented (e.g. decision/letter/decreed of the State).

Requirements of the CR on insurance and coverage do not exclude the ultimate liability of the State, in case of negligence in the exercise of its responsibilities, both under the SES Regulations and under article 28 of the Chicago Convention,. The NSA may decide to impose a minimum level of coverage for the ANSP(s) in order to protect the State’s interests.

As a consequence the ANSP will have to document the arrangements to cover each of its activities: it may provide insurance contracts, or guarantee letters/decisions by the State; each document should specify the activities concerned, the type of damages covered, the amount and the conditions of the coverage.

<p>Req. Number/Source</p> <p>ANSPCRA1.7 Para 2</p>	<p>The method employed to provide the cover shall be appropriate to the potential loss and damage in question, taking into account the legal status of the air navigation service provider and the level of commercial insurance cover available.</p>
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For all ANSPs:

The appropriateness of the method to cover the potential loss and damage is again difficult to assess, since the potential loss and damage is impossible to define precisely in advance.

The level of potential loss and damage depends on the type and level of activities of the ANSP, and again on the law applicable to the damage.

The outcome of the risk assessment (mandatory for the ATSP & CNSP cf. CR Annex II § 3.1.2) as well as the documentation and outcome of negotiations with insurers should be used as an indicator of its potential liability.

The legal status of the ANSP may have an impact with regard to the method for coverage. A fully State-owned ANSP may e.g. benefit from the full State guarantee, and therefore not need to subscribe a commercial insurance policy.

The level of insurance coverage will depend on the:

- risks the insurance companies will accept to cover: it seems that war and terrorism risks can be included in insurance policies but for a high premium and a limited coverage (usually 50 million dollars); however the insurance market is currently questioning this possibility and the coverage of these risks may not be available any more in the future.;
- maximum liability the insurance companies accept to cover: the maximum amounts currently insured are between 1.5 and 1.75 billion dollars, the average being around 1 billion;
- premiums the ANSPs can afford; the premiums are calculated on a number of criteria such as the type of activity (airport, ACC, en route), the loss record and the aircraft movements; considering the relatively low number of insurers involved in the coverage of air navigation services (15 to 20), their joint commitment is often necessary. This may result in the impossibility to reach the required level of coverage and/or to negotiate the premium offered.
- requirements set by the NSA to protect the State’s financial interests (i.e. art. 28 Chicago Convention with regard to additional liabilities going beyond the insurance coverage).

The cover obligation set by the Common Requirements will not be applicable if it can be demonstrated that commercial insurance cover is not available: e.g. risks not covered, amounts above limits of liability, unaffordable premiums , etc.

However, national laws and regulations may impose other conditions with regard insurance obligations.

<p>Req. Number/Source</p> <p>ANSPCRA1.7 Para 3</p>	<p>An air navigation service provider which avails itself of services of another air navigation service provider shall ensure that the agreements cover the allocation of liability between them.</p>
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Article 10 of the Service Provision Regulation foresees that Air navigation service providers shall formalise their working relationships by means of written agreements, to be notified to the NSA or authority concerned. In cases involving the provision of air traffic services, the approval of the member States concerned shall be required. The same applies for the provision of meteorological services, if the State has designated a METSP on an exclusive basis.

Paragraph 7.3 of Annex I of the CRs may apply to a number of different situations such as:

- delegation of ATS between two ANSPs within the same State;
- buy-in of different services between ANSPs within the same State (e.g. ATS/AIS, ATS/CNS, AIS/MET)
- cross-border delegation of ATS and MET services;
- cross-border delegation of CNS and/or AIS;

For all situations and for all services, ANSPs should ensure that:

- a written agreement is concluded by the competent representatives of the parties;
- all the delegated functions and/or “buy-in” services are explicitly and fully described in the agreements;
- the agreement supporting the delegation and /or “buy-in” services contains provisions on respective liabilities (vis-à-vis the contracting ANSP and third parties);
- the agreement is notified to the NSAs concerned, or that approval of the States has been obtained in case of ATS or MET services.

For ATS or MET services the conclusion of agreements between ANSPs and their approval by the States concerned does not exclude the need for the State, in which the service is provided, to designate the ANSP.

In the context of a multi States / multi ANSPs perspective, such as in a functional airspace block (FAB), liabilities would be more complex and would need to be addressed with even more detail to establish a clear liability environment between all the parties concerned.

ANSP - QUALITY OF SERVICES (Annex I- 8)

Open and transparent provision of services (8.1)

<p>Req. Number/Source</p> <p>ANSPCRA1.8.1</p>	<p>An air navigation service provider shall provide its services in an open and transparent manner. It shall publish the conditions of access to its services and establish a formal consultation process with the users of its services on a regular basis, either individually or collectively, and at least once a year.</p> <p>An air navigation service provider shall not discriminate on grounds of nationality or identity of the user or the class of users in accordance with applicable Community law.</p>
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An Air Navigation Service Provider is compliant with the open and transparent provision of services if

- the conditions of access to its services are published e. g. in relevant part of AIP, normally GEN
- formal consultation process is documented including components such as:
 - handling of complaints
 - customer surveys
 - consultation meetings
- consultation is performed at least once a year on the most relevant topics from service provision with operational and technical issues including military issues and financial aspects for the service provision;
- ANSPs should make a formal commitment in the official company policy to provide services in an impartial and non-discriminatory way and as such not distort or prevent competition where applicable. The applicable Community law relates to Art. 81 to 86 of the Treaty and derived legislation..

Evidence that the requirement is met could be:

- relevant document(s) where the conditions of access are published (e.g. AIP);
- company documents where the formal consultation process is documented (e.g. Customers Relationship Management);
- invitations and minutes of the (at least) annual consultation meetings;
- appropriate company documents (e.g. Business Plan, Annual Report) where the commitment is taken to provide services in impartial and non-discriminatory way.

ANSP - REPORTING REQUIREMENTS (Annex I-9)

<p>Req. Number/Source</p> <p>ANSPCRA1.9 –para 1 & 2</p>	<p>An air navigation service provider shall be able to provide an annual report of its activities to the relevant national supervisory authority. This report shall cover its financial results without prejudice to Article 12 of Regulation (EC) No 550/2004, as well as its operational performance and any other significant activities and developments in particular in the area of safety.</p> <p>The annual report shall include as a minimum:</p> <ul style="list-style-type: none"> • an assessment of the level and quality of service generated and of the level of safety provided; • the performance of the air navigation service provider compared to the performance objectives established in the business plan, reconciling actual performance against the annual plan by using the indicators of performance established in the annual plan; • developments in operations and infrastructure; • the financial results, as long as they are not separately published in accordance with Article 12(1) of Regulation (EC) No 550/2004 • information about the formal consultation process with the users of its services; • information about the human resources policy.
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ANSPs must provide the information as set out in the regulation. CR prescribes the minimum information to be provided in the annual report, without detailing further its content and layout.

Scope and Structure of an Annual report

Most of the ANSPs are already releasing an Annual Report whose purpose is to:

- present the company and its achievements in particular;
- disclose information to the stakeholders;
- meet the legal requirements (e.g. EU regulations).

In general, Annual Reports are released between March and July, i.e. 3 to 6 months after close of the financial year and once all figures for the years are definitive and available for analysis.

When needed, while making use of already existing documents, and recognising the existence of various forms of organisational and corporate arrangements, ANSPs may use as a basis the following best practice of ANSPs Annual reports¹.

Annual Report usually comprises:

I. Management Report

¹ PRU proposal for best practice disclosure by ANSPs Annual reports in ATM Cost Effectiveness (ACE) 2003 Benchmarking Report, paragraph 1.4

II. Annual Accounts (Financial Accounts or Financial Statements)

III. Audit Report

The purpose of the Management report is to:

- present the organisation and its achievements in particular;
- disclose information to the stakeholders.

Key aspects are:

- Profile of the organisation & description of the key business areas;
- Key figures for the whole organisation and for the “business areas” , and comparisons with previous years;
- Strategy, vision, action plans business and investment plans;
- Report of the Supervisory Board and report of the Management Board;
- Corporate Governance;
- KPIs performance achievements for the whole organisation and for each business area;

The Purpose of the Financial report is to:

- disclose primarily financial information to the stakeholders;
- fulfil legal requirements.

Key aspects are for each Business Area, such as en-route ANS, Terminal ANS and other non ANS- services on a commercial basis:

- Balance sheet;
- Profit and Loss statements;
- Income statement/Cash Flow statement;
- Notes to the financial figures;
- Accounting standards and policies;
- Detailed Asset Base, depreciation method, and depreciation period;
- Off-balance disclosures;
- Events after the Balance sheet date;
- Capital expenditures;
- Financial analysis ratios;
- Use of financial derivatives, guarantees given, commitments done.

Audit Report: the audit aspect is addressed above in the section “Financial audit”.

Preparation of an Annual report to NSA:

The ANSP may use the existing Annual Report, along with the “PRU framework for best practice disclosure by ANSPs Annual reports” as a basis in their preparation of the Annual Report to the NSA due by the EC regulation, taking into account ANSP organisation and governance principles.

Several other existing processes and documents between EUROCONTROL and ANSPs may support also the preparation of the Annual report to NSA:

- assessment of the quality of services (traffic, capacity and delays): these elements can be provided by the CFMU and the EUROCONTROL Capacity Enhancement Function;
- assessment of the level of Safety provided: EUROCONTROL Generic Safety Management Manual, **Part Four, Chapter 15**- Safety Monitoring - provides guidelines on safety reporting for ANSP annual report;
- development in operations and infrastructure: these aspects are covered in the annual Local Convergence and Implementation Plan.

Likewise the Business Plan and Annual (refer above), ANS providers and NSAs may rely on the formal consultation process to ensure a proper scrutiny of the information in the Annual Report. The NSA would in such circumstances check that the required information has been provided in the document. When relevant, the consultation process may provide the basis of the qualitative assessment of its content.

<p>Req. Number/Source ANSPCRA1.9 – para 3</p>	<p>The air navigation service provider shall make the content of the annual report available to the public under conditions set by the national supervisory authority in accordance with national law.</p>
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No guidance can be given on this requirement as its applicability depends of the conditions set by the national supervisory authority in accordance with national law.

REQUIREMENTS SPECIFIC TO ATSP

ANNEX II – 1

<p>Req. Number/Source</p> <p>ATSPCRA2.1 para 1</p>	<p>A provider of air traffic services shall make explicit to the national supervisory authority referred to in Art. 7(2) of Regulation (EC) No 550/2004:</p> <ul style="list-style-type: none"> - its legal status, its ownership structure and any arrangements having a significant impact on the control over its assets. - any links with organisations not involved in the provision of air navigation services, including commercial activities in which it is engaged either directly or through related undertakings, which account for more than 1 % of its expected revenue. Furthermore, it shall notify any change of any single shareholding which represents 10 % or more of its total shareholding.
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This requirement may be adequately met by the provider of air traffic services, in particular by the provision:

- of law or decree having created the public or semi-public ANSP;
- of an extract of the official companies Registry , for privatized or corporatised ANSPs;
- of a list of shareholders representing 10 % or more of the total shareholding of the ANSP, and of any change to this list;
- of a list of links, including commercial activities which account for more than 1% of its expected revenue;
- of information on subsidiary companies and joint undertakings.

Compliance with this requirement will also be supported by the information provided under other paragraphs of the Regulation, such as Annex 1 paragraph 2.1 (Organisational structure), paragraphs 6.1 and 6.2 (Economic and financial capacity, Financial audit), paragraph 8.1 (Open and transparent provision of services), paragraph 9 (reporting requirements and annual report).

<p>Req. Number/Source</p> <p>ATSPCRA2.1 para 2</p>	<p>A provider of air traffic services shall take all necessary measures to prevent any situation of conflict of interests that could compromise the impartial and objective provision of its services.</p>
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It is considered that this requirement is sufficiently detailed and that no guidance is necessary.

Open and transparent provision of services (ANNEX II-2)

In addition to the provision of Annex I, part 8.1 and where a Member State decides to organise the provision of specific ATS services in a competitive environment, a Member State may take all appropriate measures to ensure ***that providers of these specific air traffic services shall neither engage in conduct that would have as its object or effect the prevention, restriction or distortion of competition, nor shall they engage in conduct that amounts to an abuse of a dominant position in accordance with applicable national and Community law.***

<p>Req. Number/Source</p> <p>ATSPCRA2.2</p>	<p>“ ..Providers of these specific air traffic services shall neither engage in conduct that would have as its object or effect the prevention, restriction or distortion of competition, nor shall they engage in conduct that amounts to an abuse of a dominant position in accordance with applicable national and Community law.”</p>
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This is a further requirement related to the open and transparent provision of services. ATSP must refrain from activities, business styles and methods of unfair competition that are in conflict with the spirit and rules of the EC law.

Part B: Safety, Quality and Security

Explanatory note

This part of the guidance document covers matters relevant to the functions within the ANSP that deal with:

- Safety;
- Quality;
- Security.

Scope of the requirements

The requirements are listed in Annex I “General requirements for the provision of air navigation services” and in Annex II “: Specific requirements for the provision of air traffic services”. A more detailed mapping follows.

ANNEX I

GENERAL REQUIREMENTS FOR THE PROVISION OF AIR NAVIGATION SERVICES

3. SAFETY AND QUALITY MANAGEMENT

3.1. Safety management

ANSPCRA1.3.1

An air navigation service provider shall manage the safety of all its services. In doing so, it shall establish formal interfaces with all stakeholders which may influence directly the safety of its services.

3.2. Quality management system

*ANSPCRA1.3.2
Para 1*

An air navigation service provider shall have in place at the latest 2 years after entry into force of this Regulation a quality management system which covers all air navigation services it provides according to the following principles.

It shall:

- (a) define the quality policy in such a way as to meet the needs of different users as closely as possible;
- (b) set up a quality assurance programme that contains procedures designed to verify that all operations are being conducted in accordance with applicable requirements, standards and procedures;
- (c) provide evidence of the functioning of the quality system by means of manuals and monitoring documents;
- (d) appoint management representatives to monitor compliance with, and adequacy of, procedures to ensure safe and efficient operational practices;
- (e) perform reviews of the quality system in place and take remedial actions, as appropriate.

*ANSPCRA1.3.2
Para 2*

*ANSPCRA1.3.2
Para 3-1*

An EN ISO 9001 certificate, issued by an appropriately accredited organisation, covering the air navigation services of the provider shall be considered as a sufficient means of compliance.

ANSPCRA1.3.2
Para 3- 2

The air navigation service provider shall accept the disclosure of the documentation related to the certification to the national supervisory authority upon the latter’s request.

3.3. Operations manuals

ANSPCRA1.3.3
Para 1-

An air navigation service provider shall provide and keep up-to-date operations manuals relating to the provision of its services for the use and guidance of operations personnel.

It shall ensure that:

ANSPCRA1.3.3
Para 2-

- (a) operations manuals contain instructions and information required by the operations personnel to perform their duties;
- (b) relevant parts of the operations manuals are accessible to the personnel concerned;
- (c) the operations personnel are expeditiously informed of the amendments to the operations manual applying to their duties as well as of their entry into force.

4. SECURITY

An air navigation service provider shall establish a security management system to ensure:

- (a) the security of its facilities and personnel so as to prevent unlawful interference with the provision of services;
- (b) the security of operational data it receives or produces or otherwise employs, so that access to it is restricted only to those authorised.

ANSPCRA1.4

The security management system shall define:

- (a) the procedures relating to security risk assessment and mitigation, security monitoring and improvement, security reviews and lesson dissemination;
- (b) the means designed to detect security breaches and to alert personnel with appropriate security warnings;
- (c) the means of containing the effects of security breaches and to identify recovery action and mitigation procedures to prevent re-occurrence.

An air navigation service provider shall ensure the security clearance of its personnel, if appropriate, and coordinate with the relevant civil and military authorities to ensure the security of its facilities, personnel and data.

ANNEX II

SPECIFIC REQUIREMENTS FOR THE PROVISION OF AIR TRAFFIC SERVICES

3 SAFETY OF SERVICES

3.1. Safety management system

3.1.1. General safety requirements

ATSPCRA2.3.1.1
Para 1 -

A provider of air traffic services shall, as an integral part of the management of its services, have in place a safety management system ('SMS') which:

ensures a formalised, explicit and pro-active approach to systematic safety management in meeting its safety responsibilities within the provision of its services; operates in respect of all its services and the supporting arrangements under its managerial control; and includes, as its foundation, a statement of safety policy defining the organisation’s fundamental approach to managing safety (safety management);

ATSPCRA2.3.1.1
Para 2 -

ensures that everyone involved in the safety aspects of the provision of air traffic services has an individual safety responsibility for their own actions, that managers are responsible for the safety performance of their respective departments or divisions and that the top management of the provider carries an overall safety responsibility (safety responsibility);

ATSPCRA2.3.1.1
Para 3 -

ensures that the achievement of satisfactory safety in air traffic services shall be afforded the highest priority (safety priority);

ATSPCRA2.3.1.1
Para 4

ensures that while providing air traffic services, the principal safety objective is to minimise its contribution to the risk of an aircraft accident as far as reasonably practicable (safety objective).

3.1.2. Requirements for safety achievement

Within the operation of the SMS, a provider of air traffic services shall:

ATSPCRA2.3.1.2
Para 1 -

ensure that personnel are adequately trained and competent for the job they are required to do, in addition to being properly licensed if so required and satisfying applicable medical fitness requirements (competency);

ATSPCRA2.3.1.2
Para 2 -

ensure that a safety management function is identified with organisational responsibility for development and maintenance of the safety management system; ensure that this point of responsibility is independent of line management, and accountable directly to the highest organisational level. However, in the case of small organisations where combination of responsibilities may prevent sufficient independence in this regard, the arrangements for safety assurance shall be supplemented by additional independent means; and ensure that the top management of the service provider organisation is actively involved in ensuring safety management (safety management responsibility);

ATSPCRA2.3.1.2
Para 3

ensure that, wherever practicable, quantitative safety levels are derived and are maintained for all functional systems (quantitative safety levels);

ATSPCRA2.3.1.2
Para 4

ensure that the SMS is systematically documented in a manner, which provides a clear linkage to the organisation’s safety policy (SMS documentation);

ATSPCRA2.3.1.2
Para 5 -

ensure adequate justification of the safety of the externally provided services and supplies, having regard to their safety significance within the provision of its services (external services and supplies);

ATSPCRA2.3.1.2
Para 6 -

ensure that risk assessment and mitigation is conducted to an appropriate level to ensure that due consideration is given to all aspects of the provision of ATM (risk assessment and mitigation). As far as changes to the ATM functional system are concerned, the provisions of part 3.2 of this Annex shall apply;

ATSPCRA2.3.1.2
Para 7 -

ensure that ATM operational or technical occurrences which are considered to have significant safety implications are investigated immediately, and any necessary corrective action is taken (safety occurrences). It shall also demonstrate that it has implemented the

requirements on the reporting and assessment of safety occurrences in accordance with applicable national and Community law.

3.1.3. Requirements for safety assurance

Within the operation of the SMS, a provider of air traffic services shall ensure that:

ATSPCRA2.3.1.3 - 1

safety surveys are carried out as a matter of routine, to recommend improvements where needed, to provide assurance to managers of the safety of activities within their areas and to confirm compliance with the relevant parts of the SMS (safety surveys);

ATSPCRA2.3.1.3 - 2

- methods are in place to detect changes in functional systems or operations which may suggest any element is approaching a point at which acceptable standards of safety can no longer be met, and that corrective action is taken (safety monitoring);

ATSPCRA2.3.1.3 - 3

- safety records are maintained throughout the SMS operation as a basis for providing safety assurance to all associated with, responsible for or dependent upon the services provided, and to the national supervisory authority (safety records).

3.1.4. Requirements for safety promotion

Within the operation of the SMS, a provider of air traffic services shall ensure that:

ATSPCRA2.3.1.4 - 1

- all personnel are aware of the potential safety hazards connected with their duties (safety awareness);

ATSPCRA2.3.1.4 - 2

- the lessons arising from safety occurrence investigations and other safety activities are disseminated within the organisation at management and operational levels (lesson dissemination);

ATSPCRA2.3.1.4 - 3

- all personnel are actively encouraged to propose solutions to identified hazards, and changes are made to improve safety where they appear needed (safety improvement).

3.2. Safety Requirements for Risk Assessment and Mitigation with regard to changes

3.2.1. Section 1

Within the operation of the SMS, a provider of air traffic services shall ensure that hazard identification as well as risk assessment and mitigation are systematically conducted for any changes to those parts of the ATM functional system and supporting arrangements within his managerial control, in a manner which addresses:

ATSPCRA2.3.2.1

(a) the complete life-cycle of the constituent part of the ATM functional system under consideration, from initial planning and definition to post-implementation operations, maintenance and decommissioning;

(b) the airborne, ground and, if appropriate, spatial components of the ATM functional system, through co-operation with responsible parties; and

(c) the equipment, procedures and human resources of the ATM functional system, the interactions between these elements and the interactions between the constituent part under consideration and the remainder of the ATM functional System.

3.2.2. Section 2

The hazard identification, risk assessment and mitigation processes shall include:

ATSPCRA2.3.2.2

(a) a determination of the scope, boundaries and interfaces of the constituent part being considered, as well as the identification of the functions that the constituent part is to perform and the environment of operations in which it is intended to operate;

(b) a determination of the safety objectives to be placed on the constituent part, incorporating:

- an identification of ATM-related credible hazards and failure conditions, together with their combined effects,
- an assessment of the effects they may have on the safety of aircraft, as well as an assessment of the severity of those effects, using the severity classification scheme provided in Section 4;
- a determination of their tolerability, in terms of the hazard's maximum probability of occurrence, derived from the severity and the maximum probability of the hazard's effects, in a manner consistent with Section 4;

(c) the derivation, as appropriate, of a risk mitigation strategy which:

- specifies the defences to be implemented to protect against the risk-bearing hazards,
- includes, as necessary, the development of safety requirements potentially bearing on the constituent part under consideration, or other parts of the ATM functional system, or environment of operations, and
- presents an assurance of its feasibility and effectiveness;

(d) verification that all identified safety objectives and safety requirements have been met

- prior to its implementation of the change,
- during any transition phase into operational service,
- during its operational life; and
- during any transition phase until decommissioning.

3.2.3 Section 3

ATSPCRA2.3.2.3

The results, associated rationales and evidence of the risk assessment and mitigation processes, including hazard identification, shall be collated and documented in a manner which ensures that:

- complete arguments are established to demonstrate that the constituent part under consideration, as well as the overall ATM functional system are, and will remain tolerably safe by meeting allocated safety objectives and requirements. This shall include, as appropriate, specifications of any predictive, monitoring or survey techniques being used;
- all safety requirements related to the implementation of a change are traceable to the intended operations/functions.

3.2.4. Section 4

Hazard identification and severity assessment

ATSPCRA2.3.2.4
Para 1 -

A systematic identification of the hazards shall be conducted. The severity of the effects of hazards in a given environment of operations shall be determined using the classification scheme shown in the following table, while the severity classification shall rely on a specific argument demonstrating the most probable effect of hazards, under the worst case scenario.

Severity Class	Effect on Operations
1 [Most Severe]	Accident ²
2	Serious incident ³
3	Major incident associated with the operation of an aircraft, in which safety of aircraft may have been compromised, having led to a near collision between aircraft, with ground or obstacles.
4	Significant incident involving circumstances indicating that an accident, a serious or major incident could have occurred, if the risk had not been managed within safety margins, or if another aircraft had been in the vicinity.
5 [Least Severe]	No immediate effect on safety

In order to deduce the effect of a hazard on operations and to determine its severity, the systematic approach/process shall include the effects of hazards on the various elements of the ATM functional system, such as the air crew, the air traffic controllers, the aircraft functional capabilities, the functional capabilities of the ground part of the ATM functional system, and the ability to provide safe air traffic services.

Risk classification scheme

ATSPCRA2.3.2.4
Para 2 -

Safety objectives based on risk shall be established in terms of the hazards maximum probability of occurrence, derived both from the severity of its effect, and from the maximum probability of the hazard's effect.

As a necessary complement to the demonstration that established quantitative objectives are met, additional safety management considerations shall be applied so that more safety is added to the ATM system whenever reasonable.

3.3. Safety requirements for engineering and technical personnel undertaking operational safety related tasks

ATSPCRA2.3.3
Para 1 -

A provider of air traffic services shall ensure that technical and engineering personnel including personnel of subcontracted operating organisations who operate and maintain ATM equipment approved for its operational use

² As defined in Council directive 94/56/EC of 21 November 1994 establishing the fundamental principles governing the investigation of civil aviation accidents and incidents, OJ L 319 of 12 December 1994, p. 14-19.

³ Idem

have and maintain sufficient knowledge and understanding of the services they are supporting, of the actual and potential effects of their work on the safety of those services, and of the appropriate working limits to be applied.

*ATSPCRA2.3.3
Para 2 -*

With regard to the personnel involved in safety related tasks including personnel of subcontracted operating organisations, the provider of air traffic services shall document the adequacy of the competence of the personnel; the rostering arrangements in place to ensure sufficient capacity and continuity of service; the personnel qualification schemes and policy, the personnel training policy, training plans and records as well as arrangements for the supervision of non-qualified personnel. It shall have procedures in place for cases where the physical or mental condition of the personnel is in doubt.

*ATSPCRA2.3.3
Para 3 -*

A provider of air traffic services shall maintain a register of information on the numbers, status and deployment of the personnel involved in safety related tasks. The register shall:

- (c) identify the accountable managers for safety related functions;
- (d) record the relevant qualifications of technical and operational personnel, against required skills and competence requirements;
- (e) specify the locations and duties to which technical and operational personnel are assigned, including any rostering methodology.

Safety

RATIONALE OF THE GUIDANCE

As mentioned in the Article 1 of the Regulation:

“ This Regulation identifies and adopts the mandatory provisions of the following EUROCONTROL Safety Regulatory Requirements (ESARRs) which are relevant for the certification of air navigation service providers:

- *ESARR3 on the use of safety management systems by ATM service providers issued on 17 July 2000;*
- *ESARR4 on risk assessment and mitigation in ATM issued on 5 April 2001;*
- *ESARR5 on ATM services’ personnel, requirements for engineering and technical personnel undertaking operational safety related tasks issued on 11 April 2002.”*

As a general guidance to ANSPs, it can be said that compliance with the ESARRs as transposed in their national regulations, ensures that the Safety related Common requirements are satisfied.

Therefore, the Guidance to ANSP in the area of Safety makes an extensive use of the ESARRs and their Acceptable means of Compliance where these exist and within the scope of the compliance statements issued by SRC in its guidance material (EAMx/AMC).

ANSP - SAFETY MANAGEMENT (Annex I-3.1)

<p><i>Req. Number/Source</i> ANSPCRA1.3.1</p>	<p>An air navigation service provider shall manage the safety of all its services. In doing so, it shall establish formal interfaces with all stakeholders which may influence directly the safety of its services.</p>
<p>Analysis of Requirements</p>	<p>This requirement is closely related to the external services (requirement of ESARR 3 Section 5.2.6), which will be implemented as part of the SMS arrangement.</p>
<p>A way to comply</p>	<p>The proposed approach is in consultation with the NSA is to:</p> <ul style="list-style-type: none"> • identify list of Stakeholders subject to this requirement; • formalise interfaces and binding procedures (e.g. Service Level Agreements; contracts), related to the concerned Stakeholders, for providing and receiving the information necessary for the provision of a certain part of the service provided by an ANSP; • provide evidence of formal interfaces with these stakeholders – such as formal meetings, establishment of empowered bodies-, especially in a way that allow to decisions taken in the field of relations with stakeholders, that may impact safety, are clearly documented as well as the rationale for these decisions. <p>Wherever a Stakeholder provides external services or supplies, the ESARR3 requirement 5.2.6 (External services) applies.</p> <p>“EUROCONTROL Generic Safety Management Manual” provides guidance to ANSPs on practical implementation of an SMS.</p> <p>Small ANSPs can also use the EUROCONTROL deliverable “SMS Development Guidance for a small ATM Organisation” to derive an appropriate Safety Management System.</p>
<p>Evidence</p>	<p>Evidence of formal interfaces with the appropriate stakeholders such as formal meetings, the establishment of empowered bodies, that contracts are implemented (especially in a way that allow for decisions to be taken in the field of relations with stakeholders that may impact safety), are clearly documented together with the rationale for the decisions taken.</p>

SAFETY OF SERVICES (Annex II.3)

Quoted documents:

- all ESARRs related material are accessible on the web site http://www.eurocontrol.int/src/public/subsite_homepage/homepage.html
- “EUROCONTROL Generic Safety Management Manual”
Note: The EUROCONTROL Generic Safety Management Manual has been developed within the framework of the SASI (Support to ANSPs for SMS implementation) Project with the objective to support Air Navigation Service Providers for the implementation of their Safety Management Systems. To receive your copy, please access the www.eurocontrol.int/safety and complete the html form.

SAFETY MANAGEMENT SYSTEM (ANNEX II – 3.1)

The requirements of this section are met by implementing ESARR3 as per the limitations identified in EAM 3/AMC, except otherwise stated. The **Acceptable Means of Compliance (AMC)** of ESARR3 is the :EATMP Safety Policy, (SAF.ET1.ST01.1000-POL-01-00, Edition 1.1, August 1999) when implemented in accordance with its related EATMP Safety Policy Implementation Guidance Material (SAF.ET1.ST01.1000-GUI-01-00, Edition 1.2, August 1999).

In the guidance, additional valuable documentation is mentioned for each requirement.

General note:

- EAM 3 / GUI 2, Safety Regulatory Aspects of the ESARR 3 Implementation in small organisations & SMS Development Guidance for small ATM organisation can be used to derive a specific approach and adaptation for the small ANSP SMS and particularly Safety Policy;
- EAM 3 / GUI 4, Mapping between ISO 9001:2000 and ESARR 3- section 4.3 Safety Policy and Safety Objectives as well as “Safety And Quality Relationship Guidelines” can be used by ANSPs that are adopting an ISO approach to combine QMS and SMS and have an integrated policy and management;
- EAM 3 / GUI 5, Mapping between ESARR 3 and ICAO provisions on safety management systems at aerodromes can be used for ANSP organisation interfacing with aerodrome operators that are required also to put in place an SMS. Section 6 – Significant issues regarding inter-relationship between SMS in ATM and Aerodromes as well as the mapping tables particularly for the requirements dealing with safety responsibility are the direct reference to be used;
- A number of the Human Factors tools/methods (HERA, TRM, HF Case, HIFA, SHAPE) are available which relate to Annex 2.3 Safety of Service with specific link to Safety Achievement, Safety Promotion and Risk Assessment Mitigation - , refer to Appendix part B.

3.1.1. General safety requirements

<p>Req. Number/Source ATSPCRA2.3.1.1 Para 1</p>	<p>A provider of air traffic services shall, as an integral part of the management of its services, have in place a safety management system ('SMS') which:</p> <p>ensures a formalised, explicit and pro-active approach to systematic safety management in meeting its safety responsibilities within the provision of its services; operates in respect of all its services and the supporting arrangements under its managerial control; and includes, as its foundation, a statement of safety policy defining the organisation's fundamental approach to managing safety (safety management);</p>
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.1.1 (safety management)</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 3.2, Safety Management; • EAM 3 / GUI 3, Edition 2.0, Appendix B, ESARR3 references 5.1.1 a), b) and c).
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p><i>(In particular see Section 7.6, Safety Surveys Principle, within the EATMP Safety Policy Implementation Guidance Material).</i></p> <p>EUROCONTROL Generic Safety Management Manual Part One, Chapter 2 – Safety Policy and Part Two, Chapter 4 Safety Organisation</p> <p>Part Two, Chapter 5 Safety Responsibilities and Accountabilities provides guidelines to ANSP on how to fulfil this requirement.</p>
<p>Evidence</p>	<p>Based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p>

<p>Req. Number/Source ATSPCRA2.3.1.1 Para 2</p>	<p>A provider of air traffic services shall, as an integral part of the management of its services, have in place a safety management system ('SMS') which:</p> <p>ensures that everyone involved in the safety aspects of the provision of air traffic services has an individual safety responsibility for their own actions, that managers are responsible for the safety performance of their respective departments or divisions and that the top management of the provider carries an overall safety responsibility (safety responsibility);</p>
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.1.2 (safety responsibility)</p>

Criteria	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 3.3, Safety Responsibility; • EAM 3 / GUI 3, Edition 2.0, Appendix B, ESARR3 reference 5.1.2
A way to comply	<p>Implement AMC of ESARR3</p> <p>Usage of EUROCONTROL Generic Safety Management Manual - Part Two, Chapter 4 Safety Organisation and Chapter 5 Safety Responsibilities and Accountabilities can be adapted and adopted by ANSP to fulfil this CR.</p>
Evidence	<p>Based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p>

Req. Number/Source ATSPCRA2.3.1.1 Para 3	<p>A provider of air traffic services shall, as an integral part of the management of its services, have in place a safety management system ('SMS') which:</p> <p>ensures that the achievement of satisfactory safety in air traffic services shall be afforded the highest priority (safety priority);</p>
Analysis of Requirements	<p>Equivalent to the requirements of ESARR 3 Section 5.1.3 (safety priority).</p>
Criteria	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 3.4, Safety Priority; • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR3 reference 5.1.3
A way to comply	<p>Implement AMC of ESARR3</p> <p>Generic Policy within Part One, Chapter 2 – Safety Policy of the EUROCONTROL Generic Safety Management Manual can be adapted and adopted by ANSP to fulfil this CR.</p>
Evidence	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p> <p>In particular, evidence should demonstrate the existence of a formal approved and adopted SMS by Senior management.</p> <p>NOTE: The policy must be known and applied by staff.</p>

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.1 Para 4</p>	<p>A provider of air traffic services shall, as an integral part of the management of its services, have in place a safety management system ('SMS') which:</p> <p>ensures that while providing air traffic services, the principal safety objective is to minimise its contribution to the risk of an aircraft accident as far as reasonably practicable (safety objective).</p>
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.1.4 (safety objective).</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 3.5, Safety Objective of the ATM Services; • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR 3 reference 5.1.4
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p>Usage of the processes laid down in EUROCONTROL Generic Safety Management Manual allows ANSPs to fulfil this requirement.</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p> <p>To note that the fact that an ANSP writes in its policy these statements does not imply that these requirements are fulfilled. Procedures and processes must be in place and the ANSP must be in a position to demonstrate that they provide the expected results.</p>
<p>Additional information</p>	<p>EATM Safety Assessment Methodology (SAM) v2 FHA part.</p>

3.1.2. Requirements for safety achievement

<p>Req. Number/Source ATSPCRA2.3.1.2 para 1</p> <p>(Analysis covering part in bold: competency; medical fitness addressed separately in following analysis)</p>	<p>Within the operation of the SMS, a provider of air traffic services shall:</p> <p>ensure that personnel are adequately trained and competent for the job they are required to do, in addition to being properly licensed if so required and satisfying applicable medical fitness requirements (competency);</p>
<p>Analysis of Requirements</p>	<p>This requirement covers the provisions of ESARR 3 Section 5.2.1 (competency).</p> <p>In addition, it should be noted that:</p> <p>According to Recital 11 of the Common Requirements, the expression “properly licensed if so required” should be interpreted in terms of the NSA checking that whether personnel of ANSP, in particular ATCOs, is properly licensed if so required;</p> <p>The expression “if so required” needs to be associated with the implementation of the EC Directive on ATCO Licensing (currently under development) or the applicable national rules established in regard with ATM services personnel, consistently with ESARR 5.</p> <p>To summarise, the contents of the national rules implementing the EC Directive, as well as any other national rule applicable, must be checked in the certification process.</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 4.2 Competency; • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR 3 reference 5.2.1 • EAM 5 / GUI 2 (ESARR 5 and Related Safety Oversight for ATCOs - Part A Licence); • Directive 2006/23/EC of the European Parliament and of the Council of 5 April 2006 on a Community air traffic controller licence (consistent with ATCO-related provisions in ESARR 5).
<p>A way to comply</p>	<p>Implement AMC of ESARR3 (In particular, see Chapter 7. Section 7.2, the competency principle).</p> <p>Usage of the processes laid down in EUROCONTROL Generic Safety Management Manual – Part Two, Chapter 7 Competency Assurance allows ANSPs to fulfil this requirement.</p> <p>European Manual for ATCO Licensing.</p>

<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B and EAM 5/ GUI 2. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p> <p>In particular evidence should exist about records on: training, competency checks, licensing database etc.</p>
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<p>Req. Number/Source ATSPCRA2.3.1.2 para 1 (medical fitness)</p>	<p>Within the operation of the SMS, a provider of air traffic services shall:</p> <p>ensure that personnel are adequately trained and competent for the job they are required to do, in addition to being properly licensed if so required and satisfying applicable medical fitness requirements (competency);</p>
<p>Analysis of Requirements</p>	<p>For ATCOs the issuing of medical certificates must be consistent with the provisions of ICAO Annex 1 and the Requirements for European Class 3 Medical Certification of Air Traffic Controllers</p>
<p>Criteria</p>	<ul style="list-style-type: none"> • a process is in place to ensure that student air traffic controllers and air traffic controllers, including on the job training instructors, hold current medical certificates. • medical certificates must be issued by a competent medical body of the NSA or by medical examiners approved by the NSA • the issue of medical certificates should be consistent with the provisions of ICAO Annex 1 and the Requirements for European Class 3 Medical Certification of ATCOs • procedures are in place for monitoring controllers for psychoactive substance abuse and for providing advice to controllers taking medicines. • procedures are in place to prevent controllers exercising the privileges of their licenses while under the influence of psychoactive substances or medically unfit. • procedure are in place for informing the Designated Authority when a student or air traffic controller is assessed as medically unfit.
<p>A way to comply</p>	<p>Implementation of the following:</p> <ul style="list-style-type: none"> • Requirements for European Class 3 Medical Certification of Air Traffic Controllers • ICAO Annex 1

<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B and EAM 5/ GUI 4, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and ESARR 5 and possible ways to assess them.</p> <p>In particular ESARR 5 checklists, for example:</p> <ul style="list-style-type: none"> • medical records • guidance on taking prescription and non prescription medicines • medical checks
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This requirement also concerns Human Resources and is referred to again in Part C- Human Resources.

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.2 para 2</p>	<p>Within the operation of the SMS, a provider of air traffic services shall:</p> <p>ensure that a safety management function is identified with organisational responsibility for development and maintenance of the safety management system; ensure that this point of responsibility is independent of line management, and accountable directly to the highest organisational level. However, in the case of small organisations where combination of responsibilities may prevent sufficient independence in this regard, the arrangements for safety assurance shall be supplemented by additional independent means; and ensure that the top management of the service provider organisation is actively involved in ensuring safety management (safety management responsibility);</p>
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.2.2 (safety management responsibility).</p> <p>It should be noted that the derogations established in Article 4 as regards AFIS operators define a minimum below the safety standards required in ESARR 3 and ICAO Annex 11, 2.26.</p> <p>The text “wherever possible” has been removed which, according to “additional information” below, which put the pressure on the provider to create clear channels to the highest management level.</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 4.3, Safety management responsibility • EAM 3 / GUI 3, Edition 2.0, Appendix B, ESARR 3 reference 5.2.2 a), b), c) and d). • EAM 5 / GUI 2, Edition 2.0, Appendix B
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p><i>(In particular see Sections 5.2, Safety Department and 5.4 Safety Manager Function, within the EATMP Safety Policy Implementation Guidance Material)</i></p> <p>Usage of the content of the EUROCONTROL Generic Safety Management Manual - Part Two, Chapter 4 Safety Organisation and Chapter 5 Safety Responsibilities and Accountabilities can be adapted and adopted by ANSP to fulfil this CR.</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B and EAM 5 / GUI 2, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and ESARR 5 and possible ways to assess them.</p>

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.2 para 3</p>	<p>Within the operation of the SMS, a provider of air traffic services shall:</p> <p>ensure that, wherever practicable, quantitative safety levels are derived and are maintained for all functional systems (quantitative safety levels)</p>
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.2.3 (quantitative safety levels)</p> <p>The word “functional” is added compared to the ESARR3 text.</p> <p>According to the CR definition of “functional system” it comprises of systems, procedures and human resources.</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 4.4, Quantitative safety levels • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR3 reference 5.2.3
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p><i>(In particular see Section 7.4, Quantitative safety Level Principle, within the EATMP Safety Policy Implementation Guidance Material).</i></p> <p>The procedures given in the EUROCONTROL Generic Safety Management Manual - Part Four, Chapter 13 Change Management of the ATM System can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p>
<p>Additional information</p>	<ul style="list-style-type: none"> • EATM Safety Assessment Methodology (SAM) v2 • EUROCONTROL Generic Safety Management Manual - Chapter 17 Unit Safety Case(s) and Chapter 6 External service provide related procedures.

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.2 para 4</p>	<p>Within the operation of the SMS, a provider of air traffic services shall:</p> <p>ensure that the SMS is systematically documented in a manner, which provides a clear linkage to the organisation’s safety policy (SMS documentation);</p>
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.2.5 (SMS documentation)</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 4.6, SMS Documentation • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR 3 reference 5.2.5
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p><i>(In particular see Section 3.4, Safety Manual, within the EATMP Safety Policy Implementation Guidance Material).</i></p> <p>The procedures and content laid down in EUROCONTROL Generic Safety Management Manual - Part Five, Chapter 18 Safety Records, Chapter 19 Documentation Configuration can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p>

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.2 para 5</p>	<p>Within the operation of the SMS, a provider of air traffic services shall:</p> <p>ensure adequate justification of the safety of the externally provided services and supplies, having regard to their safety significance within the provision of its services (external services and supplies);</p>
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.2.6 (external services)</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 4.7, External Services • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR3 reference 5.2.6
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p><i>(The subject requirement is not covered by the EATMP Safety Policy Implementation Guidance Material).</i></p> <p>The procedures given in the EUROCONTROL Generic Safety Management Manual - Part Two, Chapter 6 External Services can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p>

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.2 para 6</p>	<p>Within the operation of the SMS, a provider of air traffic services shall:</p> <p>Ensure that risk assessment and mitigation is conducted to an appropriate level to ensure that due consideration is given to all aspects of the provision of ATM (risk assessment and mitigation). As far as changes to the ATM functional system are concerned, the provisions of part 3.2 of this Annex shall apply.</p>
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Sections 5.2.4 (risk assessment and mitigation) and 5.2.4 bullet a) (risk assessment and mitigation)</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Sections 4.5, Risk assessment and mitigation and 5.5 Risk Assessment and Mitigation Documentation • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR 3 reference 5.2.4 a), b) and c). <p><i>Note: Questions are mostly focused on Risk Assessment and Meeting in case of changes. This material is currently under review by SRU.</i></p>
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p><i>(In particular see Sections 7.5, System Safety Assessment Principle and 7.8 System Safety Assessment Documentation Principle, within the EATMP Safety Policy Implementation Guidance Material).</i></p> <p>The procedures given in the EUROCONTROL Generic Safety Management Manual – Part Four, Chapter 12 - Legal Provisions and Chapter 13 Change Management can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p>
<p>Additional information</p>	<ul style="list-style-type: none"> • EATM Safety Assessment Methodology (SAM) v2 • EUROCONTROL Generic Safety Management Manual - Chapter 17 Unit Safety Case(s) and Chapter 6 External services provide related procedures

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.2 para 7</p>	<p>Within the operation of the SMS, a provider of air traffic services shall:</p> <p>ensure that ATM operational or technical occurrences which are considered to have significant safety implications are investigated immediately, and any necessary corrective action is taken (safety occurrences). It shall also demonstrate that it has implemented the requirements on the reporting and assessment of safety occurrences in accordance with applicable national and Community law.</p>
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.2.7 (safety occurrences)</p> <p>It should also be noted that, according to Recital 12 of the Common Requirements, this requirement implies that NSAs must check whether ANSP meets the arrangements required to cover the reporting and assessment of safety occurrences.</p> <p>More specifically, Directives 94/56/EC and 2003/42/EC should be implemented, together with ESARR 2, at national level by means of national rules that will need to be checked as part of the certification process.</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 4.8, Safety Occurrences • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR 3 reference 5.2.7 • EAM 2 / GUI 7, Edition 1.0 • Provisions of the EC Directives 94/56/EC and 2003/42/EC
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p><i>(In particular see Section 7.3, Safety Occurrences Principle, within the EATMP Safety Policy Implementation Guidance Material).</i></p> <p>The “Guidelines for ATM occurrence investigation” and the Toolkit for ATM Occurrence Investigation, in combination with “Type of reporting systems” and/or procedure regarding Occurrence investigation from the EUROCONTROL Generic Safety Management Manual, Part Three, Chapter 8 Mandatory Reporting System and Chapter 10, Safety Occurrences Investigation can be adopted and adapted by ANSP to fulfil this requirement</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B and EAM 2/GUI 7. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and ESARR 2 and possible ways to assess them.</p>
<p>Additional information</p>	<ul style="list-style-type: none"> • EUROCONTROL tools are available (SOFIA, TOKAI etc). • EAM2/GUI 1 to 10 can also provide relevant material on reporting and investigation of safety occurrences.

3.1.3. Requirements for safety assurance

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.3 - 1 (bullet 1)</p>	<p>Within the operation of the SMS, a provider of air traffic services shall ensure that:</p> <ul style="list-style-type: none"> - safety surveys are carried out as a matter of routine, to recommend improvements where needed, to provide assurance to managers of the safety of activities within their areas and to confirm compliance with the relevant parts of the SMS (safety surveys);
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.3.1 (safety surveys)</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 5.2, Safety Surveys • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR 3 reference 5.3.1
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p><i>(In particular see Section 7.6, Safety Surveys Principle, within the EATMP Safety Policy Implementation Guidance Material).</i></p> <p>The procedures given in the EUROCONTROL Generic Safety Management Manual – Part Four, Chapter 14 Safety Surveys can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p> <p>In particular, existence of Safety Survey procedures and records</p>

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.3 -2 (bullet 2)</p>	<p>Within the operation of the SMS, a provider of air traffic services shall:</p> <ul style="list-style-type: none"> • methods are in place to detect changes in functional systems or operations which may suggest any element is approaching a point at which acceptable standards of safety can no longer be met, and that corrective action is taken (safety monitoring)
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.3.2 (safety monitoring).</p> <p>The word “functional” is added compared to the ESARR3 text. According to the CR definition of “functional system” it comprises of systems, procedures and human resources and is equivalent with the system definition of ESARR 3.</p>

<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 5.3, Safety Monitoring • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR3 reference 5.3.2
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p><i>(In particular see Section 7.7, Safety Monitoring Principle, within the EATMP Safety Policy Implementation Guidance Material).</i></p> <p>The procedures given in the EUROCONTROL Generic Safety Management Manual – Part Four, Chapter 15 Safety Monitoring can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p>

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.3-3 (3rd bullet)</p>	<p>Within the operation of the SMS, a provider of air traffic services shall:</p> <ul style="list-style-type: none"> • safety records are maintained throughout the SMS operation as a basis for providing safety assurance to all associated with, responsible for or dependent upon the services provided, and to the national supervisory authority (safety records).
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.3.3 (safety records)</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 5.4, Safety Records • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR3 reference 5.3.3
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p><i>(In particular see Section 7.8, System Safety Assessment Documentation Principle, within the EATMP Safety Policy Implementation Guidance Material).</i></p> <p>The procedures given in the EUROCONTROL Generic Safety Management Manual – Part Five, Chapter 18 Safety Records can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.</p>

3.1.4. Requirements for safety promotion

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.4 -1 (1st bullet)</p>	<p>Within the operation of the SMS, a provider of air traffic services shall ensure that:</p> <ul style="list-style-type: none"> all personnel are aware of the potential safety hazards connected with their duties (safety awareness);
<p>Analysis of Requirements</p>	<p>Not explicitly addressed in ESARR 3. This requirement goes beyond ESARR 3.</p> <p>However the notion is somehow embedded within various ESARR 3 requirements, such as ESARR 3 Section 5.2.1 (competency) and 5.4 (safety promotion)</p>
<p>Criteria</p>	<p>none</p>
<p>A way to comply</p>	<ul style="list-style-type: none"> Provision of safety training to relevant staff. Awareness campaigns disseminating the results of performed Safety assessments should be made available for relevant personnel. <p>The procedures given in EUROCONTROL Generic Safety Management Manual – Part Two, Chapter 7 Competency Assurance can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>Evidence of :</p> <ul style="list-style-type: none"> safety training (safety training records); awareness campaigns.

<p>Req. Number/Source</p> <p>ATSPCRA2.3.1.4 -2 (2nd bullet)</p>	<p>Within the operation of the SMS, a provider of air traffic services shall ensure that:</p> <ul style="list-style-type: none"> the lessons arising from safety occurrence investigations and other safety activities are disseminated within the organisation at management and operational levels (lesson dissemination);
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 3 Section 5.4.1 (lesson dissemination)</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> EAM 3 / GUI 1, Section 6.1, Lesson Dissemination EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR 3 reference 5.4.1
<p>A way to comply</p>	<p>Implement AMC of ESARR3</p> <p><i>(In particular see Section 7.9, Lesson Dissemination Principle, within the EATMP Safety Policy Implementation Guidance Material)</i></p> <p>The procedures given in EUROCONTROL Generic Safety Management Manual – Part Two, Chapter 7 Competency Assurance can be adapted and adopted by ANSP to fulfil this CR</p>

Evidence	To be based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.
Additional information	EUROCONTROL Generic Safety Management Manual - Part Three, Chapter 10 Safety Occurrences Investigation, Part Two, Chapter 5 Safety Responsibilities and Accountabilities are also providing relevant guidelines on how to fulfil the lesson dissemination CR

Req. Number/Source ATSPCRA2.3.1.4 - 3 (3rd bullet)	Within the operation of the SMS, a provider of air traffic services shall ensure that: all personnel are actively encouraged to propose solutions to identified hazards, and changes are made to improve safety where they appear needed (safety improvement).
Analysis of Requirements	Equivalent to the requirements of ESARR 3 Section 5.4.2 (safety improvement)
Criteria	Basic criteria are defined in: <ul style="list-style-type: none"> • EAM 3 / GUI 1, Section 6.2, Safety Improvement • EAM 3 / GUI 3 Edition 2.0, Appendix B, ESARR3 reference 5.4.2 a) and b).
A way to comply	Implement AMC of ESARR3 <i>(In particular see Section 7.10, Safety Improvement Principle, within the EATMP Safety Policy Implementation Guidance Material).</i> The procedures given in the EUROCONTROL Generic Safety Management Manual – Part Four, Chapter 14 Safety Surveys can be adapted and adopted by ANSP to fulfil this CR
Evidence	To be based on the referred sections of EAM 3/ GUI 3, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 3 and possible ways to assess them.

SAFETY REQUIREMENTS FOR RISK ASSESSMENT AND MITIGATION WITH REGARD TO CHANGES (ANNEX II - 3.2)

The requirements of this section are met by implementing ESARR4 as per the limitations identified in EAM 4/AMC, except otherwise stated.

The Acceptable Means of Compliance (AMC) of ESARR4 are:

- EATMP Air Navigation Safety Assessment Methodology (FHA), Edition 1.0 (this acceptable means of compliance, recognised by SRC, will be complemented by further editions of the methodology addressing the PSSA and SSA);
- EUROCAE ED78A, (“Guidelines for approval of the provision and use of Air Traffic Services supported by data communications”, December 2000);
- LVNL Safety Criteria, (Version 1.0, dated 25th April 2003, reference D/R&D 03/018).

Additional documentation is given for each requirement in the guidance below.

3.2.1. Section 1

<p>Req. Number/Source</p> <p>ATSPCRA2.3.2.1</p>	<p>Within the operation of the SMS, a provider of air traffic services shall ensure that hazard identification as well as risk assessment and mitigation are systematically conducted for any changes to those parts of the ATM functional system and supporting arrangements within his managerial control, in a manner which addresses:</p> <ul style="list-style-type: none"> (a) the complete life-cycle of the constituent part of the ATM functional system under consideration, from initial planning and definition to post-implementation operations, maintenance and de-commissioning; (b) the airborne, ground and, if appropriate, spatial components of the ATM functional system, through co-operation with responsible parties; and (c) the equipment, procedures and human resources of the ATM functional system, the interactions between these elements and the interactions between the constituent part under consideration and the remainder of the ATM functional System.
<p>Analysis of Requirements</p>	<p>Almost equivalent to the requirements of ESARR 4 Section 5.1</p> <p>The word “functional” is added compared to the ESARR 4 text.</p> <p>According to the CR definition of “functional system” it comprises of systems, procedures and human resources.</p> <p>Functional system definition in CR is the same with the ESARR 3 definition for system</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 4 / GUI 1, Section 6.2 • EAM 4 / GUI 2 Edition 4.0, Appendix B, ESARR 4 reference 5.1, 5.1.1 a), b) and c).

<p>A way to comply</p>	<p>Implement AMC of ESARR4</p> <p><i>Other valuable documentations:</i></p> <p>EATM Safety Assessment Methodology (SAM) v2</p> <p>Usage of the procedures of the EUROCONTROL Generic Safety Management Manual – Part Four, Chapter 13 Change Management can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 4/ GUI 2, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 4 and possible ways to assess them.</p>
<p>Additional information</p>	<p>Procedures laid down in the EUROCONTROL Generic Safety Management Manual – Part Four, Chapter 17, Unit Safety Case(s) provides additional relevant information.</p> <p>A number of the HF tools/methods (HERA, TRM, HF Case, HIFA, SHAPE) are available which relate to Annex 2.3 Safety of Service with specific link to Safety Achievement, Safety Promotion and Risk Assessment Mitigation. Refer to Appendix Part B.</p>

3.2.2 Section 2

<p>Req. Number/Source</p> <p>ATSPCRA2.3.2.2 para 1 (a)</p>	<p>The hazard identification, risk assessment and mitigation processes shall include:</p> <p>(a) a determination of the scope, boundaries and interfaces of the constituent part being considered, as well as the identification of the functions that the constituent part is to perform and the environment of operations in which it is intended to operate;</p> <p>(b) a determination of the safety objectives to be placed on the constituent part, incorporating:</p> <ul style="list-style-type: none"> • an identification of ATM-related credible hazards and failure conditions, together with their combined effects, • an assessment of the effects they may have on the safety of aircraft, as well as an assessment of the severity of those effects, using the severity classification scheme provided in Section 4; • a determination of their tolerability, in terms of the hazard’s maximum probability of occurrence, derived from the severity and the maximum probability of the hazard’s effects, in a manner consistent with Section 4; <p>(c) the derivation, as appropriate, of a risk mitigation strategy which:</p> <ul style="list-style-type: none"> • specifies the defences to be implemented to protect against the risk-bearing hazards, • includes, as necessary, the development of
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	<p>safety requirements potentially bearing on the constituent part under consideration, or other parts of the ATM functional system, or environment of operations, and</p> <ul style="list-style-type: none"> • presents an assurance of its feasibility and effectiveness; <p>(d) verification that all identified safety objectives and safety requirements have been met</p> <ul style="list-style-type: none"> • prior to its implementation of the change, • during any transition phase into operational service, • during its operational life, and • during any transition phase until decommissioning.
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 4 Section 5.2.</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 4 / GUI 1, Sections 6.3, 6.4, 6.5. • EAM 4 / GUI 2 Edition 4.0, Appendix B, ESARR 4 reference 5.2.a (and all sub-bullets), 5.2.b (and all sub-bullets), 5.2.c (and all sub-bullets) and 5.2.d (and all sub-bullets).
<p>A way to comply</p>	<p>Implement AMC of ESARR4</p> <p><i>Other valuable documentation:</i></p> <p>EATM Safety Assessment Methodology (SAM) v2</p> <p>The procedures given in the EUROCONTROL Generic Safety Management Manual – Part Four, Chapter 13 Change Management can be adapted and adopted by ANSP to fulfil this CR.</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 4/ GUI 2, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 4 and possible ways to assess them.</p>

3.2.3 Section 3

<p>Req. Number/Source</p> <p>ATSPCRA2.3.2.3</p>	<p>The results, associated rationales and evidence of the risk assessment and mitigation processes, including hazard identification, shall be collated and documented in a manner which ensures that:</p> <ul style="list-style-type: none"> • complete arguments are established to demonstrate that the constituent part under consideration, as well as the overall ATM functional system are, and will remain tolerably safe by meeting allocated safety objectives and requirements. This shall include, as appropriate, specifications of any predictive, monitoring or survey techniques being used; • all safety requirements related to the implementation of a change are traceable to the intended operations/functions.
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 4 Section 5.3.</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 4 / GUI 1, Section 6.6; • EAM 4 / GUI 2 Edition 4.0, Appendix B, ESARR 4 reference 5.3, 5.3 a), and b).
<p>A way to comply</p>	<p>Implement AMC of ESARR4</p> <p><i>Other valuable documentations:</i></p> <p>EATM Safety Assessment Methodology (SAM) v2</p> <p>The procedures given in the EUROCONTROL Generic Safety Management Manual – Part Four, Chapter 13 Change Management can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 4/ GUI 2, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 4 and possible ways to assess them.</p>
<p>Additional information</p>	<p>Procedures laid down in the EUROCONTROL Generic Safety Management Manual - Part Four, Chapter 17 Unit Safety Case(s) provides additional relevant information.</p>

3.2.4. Section 4

Hazard identification and severity assessment

<p>Req. Number/Source</p> <p>ATSPCRA2.3.2.4 para 1</p>	<p>A systematic identification of the hazards shall be conducted. The severity of the effects of hazards in a given environment of operations shall be determined using the classification scheme shown in the following table, while the severity classification shall rely on a specific argument demonstrating the most probable effect of hazards, under the worst case scenario.</p> <table border="1" data-bbox="544 577 1380 1249"> <thead> <tr> <th>Severity Class</th> <th>Effect on Operations</th> </tr> </thead> <tbody> <tr> <td>1 [Most Severe]</td> <td>Accident</td> </tr> <tr> <td>2</td> <td>Serious incident</td> </tr> <tr> <td>3</td> <td>Major incident associated with the operation of an aircraft, in which safety of aircraft may have been compromised, having led to a near collision between aircraft, with ground or obstacles.</td> </tr> <tr> <td>4</td> <td>Significant incident involving circumstances indicating that an accident, a serious or major incident could have occurred, if the risk had not been managed within safety margins, or if another aircraft had been in the vicinity.</td> </tr> <tr> <td>5 [Least Severe]</td> <td>No immediate effect on safety</td> </tr> </tbody> </table> <p>To deduce the effect of a hazard on operations and to determine its severity, the systematic approach/process shall include the effects of hazards on the various elements of the ATM functional system, such as the air crew, the air traffic controllers, the aircraft functional capabilities, the functional capabilities of the ground part of the ATM functional system, and the ability to provide safe air traffic services.</p>	Severity Class	Effect on Operations	1 [Most Severe]	Accident	2	Serious incident	3	Major incident associated with the operation of an aircraft, in which safety of aircraft may have been compromised, having led to a near collision between aircraft, with ground or obstacles.	4	Significant incident involving circumstances indicating that an accident, a serious or major incident could have occurred, if the risk had not been managed within safety margins, or if another aircraft had been in the vicinity.	5 [Least Severe]	No immediate effect on safety
Severity Class	Effect on Operations												
1 [Most Severe]	Accident												
2	Serious incident												
3	Major incident associated with the operation of an aircraft, in which safety of aircraft may have been compromised, having led to a near collision between aircraft, with ground or obstacles.												
4	Significant incident involving circumstances indicating that an accident, a serious or major incident could have occurred, if the risk had not been managed within safety margins, or if another aircraft had been in the vicinity.												
5 [Least Severe]	No immediate effect on safety												
<p>Analysis of Requirements</p>	<p>Equivalent to the requirements of ESARR 4 , Appendix A-1</p>												
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 4 / GUI 1, Section 6.3 • EAM 4 / GUI 2 Edition 4.0, Appendix B, ESARR 4 reference A1 Paragraph 1, Paragraph 2 and Figure A-1, Paragraph 3 and Paragraph 4. 												

<p>A way to comply</p>	<p>Implement AMC of ESARR4</p> <p><i>Other valuable documentations:</i></p> <p>EATM Safety Assessment Methodology (SAM) v2</p> <p>The procedures given in the EUROCONTROL Generic Safety Management Manual – Part Four, Chapter 13 Change Management can be adapted and adopted by ANSP to fulfil this CR.</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 4/ GUI 2, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 4 and possible ways to assess them.</p>
<p>Additional information</p>	<ul style="list-style-type: none"> • Procedures laid down in the EUROCONTROL Generic Safety Management Manual – Part Four, Chapter 17 Unit Safety Case provides additional relevant information; • A number of the HF tools/methods (HERA,TRM, HF Case, HIFA, SHAPE) are available which relate to Annex 2.3 Safety of Service with specific link to Safety Achievement, Safety Promotion and Risk Assessment Mitigation , refer to Appendix Part B.

Risk classification scheme

<p>Req. Number/Source</p> <p>ATSPCRA2.3.2.4 para 2</p>	<p>Safety objectives based on risk shall be established in terms of the hazards maximum probability of occurrence, derived both from the severity of its effect, and from the maximum probability of the hazard's effect.</p> <p>As a necessary complement to the demonstration that established quantitative objectives are met, additional safety management considerations shall be applied so that more safety is added to the ATM system whenever reasonable.</p>
<p>Analysis of Requirements</p>	<p>ESARR 4 is more demanding than the current version of the Common Requirements. ESARR 4 requires that safety objectives are derived in accordance to maximum tolerable probabilities consistent with the one identified in ESARR 4 for severity class 1 (1,55.10⁻⁸ per flight/hour). This figure has not been transposed in the CR.</p> <p>Although Recital 16 of the CR recognised that ESARR 4 defines a maximum tolerable probability for ATM directly contributing to accidents in the ECAC region, maximum tolerable probability for the remaining severity classes 2 to 5 have not been established. The Member States and the EC working together with EUROCONTROL should complete and update these probabilities and develop mechanisms to apply them in different environments.</p>

Criteria	Basic criteria are defined in EAM 4 GUI 2 v 4.0, Appendix B, ESARR 4 reference A2 Paragraph 1 and Figure A-2, and Paragraph 2.
A way to comply	Implement AMC of ESARR4 <i>Other valuable documentations:</i> EATM Safety Assessment Methodology (SAM) v2 The procedures given in the EUROCONTROL Generic Safety Management Manual – Part Four, Chapter 13 Change Management can be adapted and adopted by ANSP to fulfil this CR
Evidence	To be based on the referred sections of EAM 4/ GUI 2, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with ESARR 4 and possible ways to assess them.
Additional information	Procedures laid down in the EUROCONTROL Generic Safety Management Manual, Part Four, Chapter 17 Unit Safety Case provides additional relevant information.

SAFETY REQUIREMENTS FOR ENGINEERING AND TECHNICAL PERSONNEL UNDERTAKING OPERATIONAL SAFETY RELATED TASKS (ANNEX II - 3.3)

Req. Number/Source ATSPCRA2.3.3 para 1	A provider of air traffic services shall ensure that technical and engineering personnel including personnel of subcontracted operating organisations who operate and maintain ATM equipment approved for its operational use have and maintain sufficient knowledge and understanding of the services they are supporting, of the actual and potential effects of their work on the safety of those services, and of the appropriate working limits to be applied.
Analysis of Requirements	Requirements are equivalent to ESARR 5 Section 5.3 applicable to ATS providers (to note that the requirements of 5.3.2 apply directly to operating organisations, while in the CR they apply indirectly, via the service provider organisation).
Criteria	Basic criteria are defined in: - EAM 5 / GUI 3, Section 2.2; - EAM 5 / GUI 4 Edition 2.0, Appendix B, ESARR 5 reference 5.3.2 a) b) and e) An ANSP should ensure that the technical and engineering personnel are properly trained and qualified to perform the assigned tasks (Section 5.3 ESARR5). Including procedures: - for on the job training. - for refresher training - for emergency training - those performing on the job training are competent and have the appropriate experience to be granted this responsibility - they have competence schemes to ensure that the personnel are qualified and competent to perform the assigned task. - Competence scheme is fully documented

	<p>- Internal procedures or dealing with engineering and technical personnel who have met the ongoing experience requirement</p> <p>Procedures to prevent technical and engineering personnel exercising their assigned tasks while knowing or suspecting that the physical or mental conditions of individuals render them unfit for such tasks</p>
<p>A way to comply</p>	<p>At present, no acceptable means of compliance has been recognised by SRC as regards the ESARR 5 provisions for technical and engineering personnel.</p> <p>Nevertheless the following documents are valuable to be considered:</p> <ul style="list-style-type: none"> • Guidelines for a Common Basic Level of Technical Training for Air Traffic Safety Electronics Personnel • Guidelines for a Common Qualification Level of Technical Training for Air Traffic Safety Electronics Personnel • Guidelines for a competence assessment scheme for Engineers and Technical Personnel : <i>(available March 2006)</i> <p>Usage of the procedures of the EUROCONTROL Generic Safety Management Manual – Part Two, Chapter 7 – Competency Assurance can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 5/ GUI 4, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with the ESARR 5 provisions on ATSEPs and possible ways to assess them.</p> <p>ESARR5 checklist, for example</p> <ul style="list-style-type: none"> - records of initial training - records of OJT training - records of special training to obtain qualification - course plan - training reports - internal audit reports - documented competence scheme - competence records - medical records
<p>Additional information</p>	<p>On relevant deliverables, refer to Appendix Part C Item 1 – Training</p>

This requirement also concerns Human Resources and is referred to again in Part C- Human Resources.

<p>Req. Number/Source</p> <p>ATSPCRA2.3.3 para 2</p> <p>(analysis addressing specifically rostering”is addressed in the following box)</p>	<p>With regard to the personnel involved in safety related tasks including personnel of subcontracted operating organisations, the provider of air traffic services shall document the adequacy of the competence of the personnel; the rostering arrangements in place to ensure sufficient capacity and continuity of service; the personnel qualification schemes and policy, the personnel training policy, training plans and records as well as arrangements for the supervision of non-qualified personnel. It shall have procedures in place for cases where the physical or mental condition of the personnel is in doubt.</p>
<p>Analysis of Requirements</p>	<p>Requirements are equivalent to ESARR 5 Section 5.3 applicable to ATS providers (to note that the requirements of 5.3.2 apply directly to operating organisations, while in the CR they apply indirectly, via the service provider organisation).</p> <p>The last sentence of the requirement is covered by ESARR5 Chapter 5.3.3</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 5 / GUI 3, Section 2.2; • EAM 5 / GUI 4 Edition 2.0, Appendix B, ESARR 5 reference 5.3.2 c) and 5.3.2 c) sub bullets ii), iii), iv) and vi).
<p>A way to comply</p>	<p>At present, no acceptable means of compliance has been recognised by SRC as regards the ESARR 5 provisions for technical and engineering personnel.</p> <p>The procedures given in the EUROCONTROL Generic Safety Management Manual – Part Two, Chapter 7 – Competency Assurance can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 5/ GUI 4, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with the ESARR 5 provisions on ATSEPs and possible ways to assess them.</p>

<p>Req. Number/Source</p> <p>ATSPCRA2.3.3 para 2 <i>(analysis addressing specifically rostering”)</i></p>	<p>With regard to the personnel involved in safety related tasks including personnel of subcontracted operating organisations, the provider of air traffic services shall document the adequacy of the competence of the personnel; the rostering arrangements in place to ensure sufficient capacity and continuity of service; the personnel qualification schemes and policy, the personnel training policy, training plans and records as well as arrangements for the supervision of non-qualified personnel. It shall have procedures in place for cases where the physical or mental condition of the personnel is in doubt.</p>
<p>Analysis of Requirements</p>	<p>See ANSPCRA1.5-1</p> <p>Rostering not covered by EC Directive</p> <p>However, an ATSP would take on board national rules on working time that would need to be respected. Also have specific rules on shiftwork stated in the ATSP working conditions When determining the staffing requirements needs to take into account staff needed for ops duties and non ops duties (training, projects, refresher training etc)</p>
<p>Criteria</p>	<ul style="list-style-type: none"> • have a short term and long term planning process in place • have in place appropriate methodology to determine the staffing requirement at various times of the year. • details of the roster actually worked to ensure sufficient capacity and continuity of Service • have a policy/procedure in place to deal with unexpected absences • adhere to working time rules in place when establishing the roster <p>Basic criteria are defined in EAM 5 / GUI 4, v2.0, Appendix B, ESARR 5 reference 5.3.2 c) sub bullet i) and 5.3.2 d) (medical fitness)</p>
<p>A way to comply</p>	<ul style="list-style-type: none"> • ATS Manpower Planning in Practice: Introduction to a Qualitative and Quantitative Staffing Methodology • guidelines for ATCO Manpower Planning Processes • LAMPS – Long term ATCO Manpower Planning Simulation • Collaborative and Harmonised ATCO Manpower Planning (CHAMP) Process

<p>Evidence</p>	<p>To be based on the referred sections of EAM 5/ GUI 4, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with the ESARR 5 provisions on ATSEPs and possible ways to assess them.</p> <p>In particular:</p> <ul style="list-style-type: none"> • comparison with planned and actual roster. • tracking of lack of sufficient capacity and discontinuity of service due to staff shortage. • attendance records and watch records • check rosters for compliance with working time requirements (e.g. SRATCOH in UK)
<p>Additional information</p>	<p>Refer to Appendix Part C Item 1 – Manpower Planning</p>

This requirement also concerns Human Resources and is referred to again in Part C- Human Resources.

<p>Req. Number/Source</p> <p>ATSPCRA2.3.3 para 3</p>	<p>A provider of air traffic services shall maintain a register of information on the numbers, status and deployment of the personnel involved in safety related tasks.</p> <p>The register shall:</p> <ul style="list-style-type: none"> (a) identify the accountable managers for safety related functions; (b) record the relevant qualifications of technical and operational personnel, against required skills and competence requirements; (c) specify the locations and duties to which technical and operational personnel are assigned, including any rostering methodology.
<p>Analysis of Requirements</p>	<p>Requirements are equivalent to ESARR 5 Section 5.3 applicable to ATS providers</p> <p>(note that the requirements of 5.3.2 apply directly to operating organisations, while in the CR they apply indirectly, via the service provider organisation).</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 5 / GUI 3, Section 2.2; • EAM 5 / GUI 4 v2.0, Appendix B, ESARR 5 reference 5.3.2 c) sub bullet v)
<p>A way to comply</p>	<p>At present, no acceptable means of compliance has been recognised by SRC as regards the ESARR 5 provisions for technical and engineering personnel.</p> <p>Nevertheless, usage of the procedures of the EUROCONTROL Generic Safety Management Manual – Part Two, Chapter 5 Safety Responsibilities and Accountabilities – Part Five, Chapter 18 Safety Records and Part Two, Chapter 7 Competency Assurance can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 5/ GUI 4, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with the ESARR 5 provisions on ATSEPs and possible ways to assess them.</p>
<p>Additional information</p>	<p>bullet (c) on locations and duties is addressed in Part C – Human resources</p>

QUALITY

ANSP - QUALITY MANAGEMENT (Annex I-3.2)

<p><i>Req. Number/Source</i></p> <p>ANSPCRA1.3.2- para 1&2</p>	<p>An air navigation service provider shall have in place at the latest 2 years after entry into force of this Regulation a quality management system which covers all air navigation services it provides according to the following principles</p> <p>It shall:</p> <ul style="list-style-type: none"> (a) define the quality policy in such a way as to meet the needs of different users as closely as possible; (b) set up a quality assurance programme that contains procedures designed to verify that all operations are being conducted in accordance with applicable requirements, standards and procedures; (c) provide evidence of the functioning of the quality system by means of manuals and monitoring documents; (d) appoint management representatives to monitor compliance with, and adequacy of, procedures to ensure safe and efficient operational practices; (e) perform reviews of the quality system in place and take remedial actions, as appropriate.
<p><i>Analysis of Requirements</i></p>	<p>The ANSP has a number of issues to assess and evaluate in relation to its approach to quality management. Consideration should be given to the following items:</p> <ul style="list-style-type: none"> • the criteria upon which to base the quality management system (QMS). • the scope of the quality management system (QMS). Irrespective of the criteria which have been selected as the basis of the QMS, the ANSP should ensure that the scope of the QMS covers all air navigation services provided. <p>The timeframe for compliance with this requirement is 2 years (1 year for other common requirements). Two years is a realistic timescale for those ANSPs embarking on formalising their approach to quality management systems. Some ANSPs may have begun work or have already met this requirement.</p>
<p><i>Criteria</i></p>	<p>The ANSP should assess and decide what it considers to be acceptable criteria, which it can use as a basis for its QMS. As a minimum, the QMS should address the five clauses (a-e) outlined above. A valid EN ISO 9001 certificate, which also addresses these five clauses, is considered as sufficient means of compliance, provided it has been issued by an appropriately accredited organisation. The decision on the criteria to use could be determined in consultation with the NSA.</p>

<p><i>A way to comply</i></p>	<p>The way to comply depends on how the ANSP interprets the common requirements and criteria of eligibility on quality management. Two possible scenarios could be considered:</p> <p><u>Scenario 1</u> The ANSP provides a valid EN ISO 9001 Certificate which has been issued by an appropriately accredited organisation, with the scope defined as covering air navigation services provided.</p> <p><u>Scenario 2</u> The ANSP has a QMS in place which complies with the five clauses a to e (described in requirement ANSPCRA1.3.2 - para 2).</p> <p>Irrespective of which scenario is chosen, in order to demonstrate compliance with the requirements on quality management, the ANSP should ensure that:</p> <ul style="list-style-type: none"> • the scope of the QMS covers the air navigation services provided; • compliance is achieved within the required timescale of 2 years, after entry into force of this regulation.
<p><i>Evidence</i></p>	<p>The evidence required to demonstrate conformity, depends on how the ANSP interprets the requirements and criteria of eligibility on quality management. The evidence for each of the two scenarios, could include:</p> <p><u>Evidence for Scenario 1</u> The ANSP provides a valid EN ISO 9001 Certificate which has been issued by an appropriately accredited organisation, with the scope defined as covering air navigation services provided.</p> <p><u>Evidence for Scenario 2</u> Where the ANSP has a QMS in place which complies with the five clauses (a-e) described in requirement ANSPCRA1.3.2 - para 2, the evidence could include:</p> <ul style="list-style-type: none"> • quality policy defined to meet the needs of the different users; • quality assurance programme procedures; • quality management system documents e.g. quality management manual; process procedures, work procedures & instructions, monitoring documents, internal quality audit documents (schedules, audit reports, corrective action reports) and quality records; • confirmation that a Management Representative for the quality system has been appointed, who irrespective of other responsibilities, has responsibility and authority for ensuring the QMS is established, implemented and maintained and for reporting on the performance of the QMS to top management; • records from management reviews on the QMS by top management.

	<p>The NSA may seek evidence of compliance with the above five clauses (a-e) through: a desk audit (on/off site); by conducting its own quality audit/questionnaire against the above criteria; or by contracting this audit check to an external 2nd party organisation.</p> <p>The evidence demonstrating compliance could include quality audit schedules, quality audit reports & corrective action plans.</p>
<p>Additional Information</p>	<p><u>References & Links</u></p> <ul style="list-style-type: none"> • EN ISO 9001:2000, Quality Management Systems – Requirements http://www.iso.org/iso/en/iso9000-14000/index.html

<p>Req. Number/Source</p> <p>ANSPCRA1.3.2 – para 3 - 1</p>	<p>An EN ISO 9001 certificate, issued by an appropriately accredited organisation, covering the air navigation services of the provider shall be considered as a sufficient means of compliance.</p>
<p>Analysis of Requirements</p>	<p>If the ANSP presents a valid EN ISO 9001 certificate as the basis of compliance, then it should ensure that the certificate has been issued by an appropriately accredited organisation (with the scope covering the air navigation services provided).</p> <p>In the context of EN ISO 9001:2000, this could be considered as a certification (registration) body which has been approved by an Accreditation Body as competent (in accordance with ISO/IEC Guide 62) to carry out ISO 9000 certification, in specific business sectors.</p>
<p>Criteria</p>	<p>When an ANSP is establishing if an organisation is appropriately accredited to award an EN ISO 9001 certificate, two steps should be considered:</p> <ol style="list-style-type: none"> 1. refer to the ISO Directory of ISO 9000 Accreditation and Certification Bodies – focus on the certification (registration) bodies operating nationally or multi-nationally. 2. check if the certification (registration) body has the required specific business sector experience.
<p>A way to comply</p>	<p>The official way to check if a certification (registration) body has the required specific business sector experience, is to check if it has been accredited to audit against the relevant EAC code : 21 –Aerospace - and EAC 31 - Transport, Storage and Communications-.</p> <p>However, there are few certification (registration) bodies that have this business sector experience. Therefore, the ANSPs could additionally check with other ANSPs for information and references on relevant certification (registration) organisations.</p> <p>The ANSP may also wish to check with their NSA, to understand their view on whether or not the proposed certification (registration) body is deemed to be an appropriately accredited organisation.</p>

Evidence	The certification (registration) body has been approved by an Accreditation Body as competent (in accordance with ISO/IEC Guide 62) to carry out ISO 9000 certifications and has the required business sector experience specific for ANS (EAC code 21: Aerospace and EAC 31 Transport, Storage and Communications).
Additional Information	<p><u>References & Links</u></p> <ul style="list-style-type: none"> • ISO/IEC Guide 62:1996, General requirements for bodies operating assessment and certification/registration of quality systems. http://www.iso.org/iso/en/CatalogueDetailPage.CatalogueDetail?CSNUMBER=25251&ICS1=3&ICS2=120&ICS3=20 • ISO Directory of ISO 9000 Accreditation and Certification Bodies http://www.iso.org/iso/en/info/ISODirectory/intro.html • ISO 19011:2002, Guidelines for quality and/or environmental management systems auditing http://www.iso.org/iso/en/CatalogueDetailPage.CatalogueDetail?CSNUMBER=31169&ICS1=13&ICS2=20&ICS3=10

Req. Number/Source ANSPCRA1.3.2 – para 3 -2	The air navigation service provider shall accept the disclosure of the documentation related to the certification to the national supervisory authority upon the latter’s request.
Analysis of Requirements	For the compliance with the CRs on quality the ANSP will be required to provide the documents in relation to its certification to the NSA. The ANSP will be expected to accept this requirement for the disclosure of relevant quality documentation.
Criteria	To facilitate transparency, the ANSP should discuss and agree with the NSA on the relevant documentation which might be required to be disclosed in relation to certification by the NSA.
A way to comply	<p>This depends on the scenario selected for the compliance with the Common Criteria ANSPCRA1.3.2- para 1&2 by the ANSP.</p> <p>If <u>scenario 1</u> has already been selected, a valid EN ISO 9001 Certificate, with the scope defined as covering air navigation services provided, is considered an acceptable means of compliance.</p> <p>If the NSA has doubts about the validity or the completeness of the ISO certificate, the NSA has the right to access the documentation regarding the registration and ongoing auditing processes (e.g. Audit schedule from the certification (registration) body; Audit reports from the external quality audit; Corrective Action Report(s) by the ANSPs as a result of the external quality audit).</p> <p>This is an exceptional procedure providing additional evidence to NSA when needed. If the NSA requests access to quality documents in relation to its certification, the ANSP shall accept the disclosure of documentation.</p> <p>For <u>scenario 2</u>, documentation has to be disclosed to provide</p>

	evidence for compliance with the five clauses described in requirement ANSPCRA1.3.2 - para 1&2 and requirement ANSPCRA1.3.3 – para 1&2.
Evidence	<p><u>For scenario 1:</u> Valid EN ISO 9001 Certificate, together with documentation on the scope of the certificate (e.g. quality manual)</p> <p><u>For scenario 2:</u> Documentation has to be disclosed to provide evidence for compliance with the five clauses described in requirement ANSPCRA1.3.2 - para 1&2. and requirement ANSPCRA1.3.3 – para 1&2.</p>

ANSP – Operations Manual (Annex I-3.3)

Req. Number/Source ANSPCRA1.3.3 – para 1&2	<p>An air navigation service provider shall provide and keep up-to-date operations manuals relating to the provision of its services for the use and guidance of operations personnel. It shall ensure that:</p> <ul style="list-style-type: none"> (a) operations manuals contain instructions and information required by the operations personnel to perform their duties; (b) relevant parts of the operations manuals are accessible to the personnel concerned; (c) the operations personnel are expeditiously informed of the amendments to the operations manual applying to their duties as well as of their entry into force.
Analysis of Requirements	The ANSP must ensure that it has a suitable procedure in place for the control, provision, maintenance and distribution of new versions of its operations manuals (i.e. an effectively functioning document control system).
Criteria	An effective document control system is an integral part of a Quality Management System (refer to ANSPCRA1.3.2- para 1&2). The best practice standards or criteria of eligibility for a document control system are contained in the EN ISO 9001:2000 standard.
A way to comply	<p>It depends on the scenario selected for the compliance with the Common Criteria ANSPCRA1.3.2- para 1&2 by the ANSP.</p> <p>If scenario 1 has already been selected, a valid EN ISO 9001 Certificate, which has been issued by an appropriately accredited organisation, with the scope defined as covering air navigation services provided, is considered an acceptable means of compliance.</p> <p>Otherwise, scenario 2 will be applicable and the ANSP should have an effective document control system in place, which ensures:</p> <ul style="list-style-type: none"> • the appropriate operations manuals are in place, in accordance with the scope of services provided; • the content of operations manuals contain the appropriate instructions and information required by the

	<p>operations personnel to perform their duties;</p> <ul style="list-style-type: none"> • the relevant part(s) of operations manuals are accessible to the appropriate people, particularly for the use by and guidance of operations personnel; • any amendments or revisions to operations manuals are expeditiously communicated to the relevant operations personnel.
<p>Evidence</p>	<p><u>Evidence for Scenario 1</u> The ANSP provides a valid EN ISO 9001 Certificate, which has been issued by an appropriately accredited organisation, with the scope defined as covering air navigation services provided.</p> <p><u>Evidence for Scenario 2</u> The ANSP should ensure that it has an effectively functioning document control system and evidence demonstrating this could include:</p> <ul style="list-style-type: none"> • a copy of the ANSP’s document control procedure, together with a list of controlled documents; • the documents listed are appropriate to the scope of the ANSP’s services and include the relevant operations manuals; • copies of the relevant operations manuals; • documentation management system covering the change management and records demonstrating an effectively functioning document control system, for example, management reviews, quality audit reports and corrective action plans (internal and/or external). <p>NSA may verify through an on-site audit, whether the operations manuals cover all areas of operations the ANSP provides and contain the required information needed by the operations personnel in line with the appropriate ICAO Standards mentioned in the CR ANNEX II (ATSP) and V (CNSP).</p>
<p>Additional Information</p>	<p>Refer to clause ‘4.2: Documentation Requirements’ of the EN ISO 9001:2000 standard</p>

SECURITY (Annex I- 4)

ICAO Standards

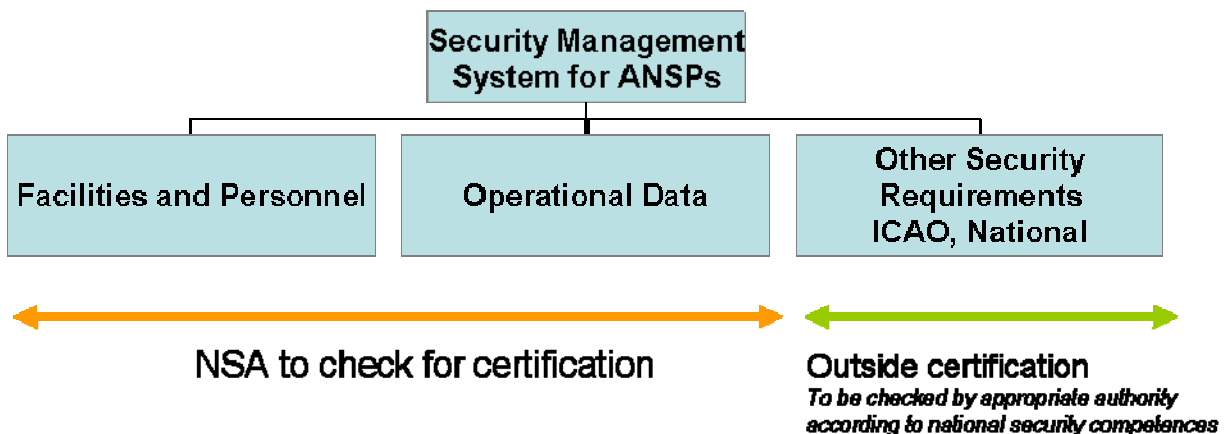
The EC Regulation laying down the CRs requires an ANSP to establish a Security Management System (SMS) (Annex I. 4). It should comply with ICAO standards (Recital 14) and as well as by the EC Regulation itself.

In addition there may also be national exemptions or deviations that are agreed with ICAO or the EC and various provisions that are part of the national law covering, for instance, data protection, privacy, and immigration and state treaties requiring compliance.

The ICAO requirements for aviation security are summarised in **ICAO Doc. 8973**, Security Manual for Safeguarding Civil Aviation Against Acts of Unlawful Interference. This references the many publications that contain the requirements for aviation security; Annexes 2 (Rules of the Air), 6 (Operation of Aircraft), 9 (Facilitation), 10 (Aeronautical Telecommunications), 11 (Air Traffic Services), 13 Aircraft Accident and Incident Investigation), 14 (Aerodromes), 17 (Aviation Security), 18 (The Safe Transport of Dangerous Goods by Air); Doc 4444 (The Procedures for Air Navigation Services – Air Traffic Management), Doc 8168 (The Procedures for Air Navigation Services – Aircraft Operations); Resolutions of the Assembly; and the Tokyo (1963), Hague (1970) and Montreal (1971 and 1991) Conventions. Only part of Doc. 8973 is applicable to an ANSP, the rest being concerned with airports and airlines.

There is some overlap between the EC Regulation and the ICAO standards, but they are mostly complementary.

This guidance material specifically refers to the requirements of the EC Regulation laying down CRs against which the Certificate will be issued but that does not imply that it is sufficient on its own for an adequate SMS. The SMS should address all the requirements that are placed on the ANSP as international (ICAO) or national law requirements on Security.



Industry Standards

A large part of the operations in the provision of air navigation services concern information processing and communications and so this guidance material refers to the well established industry standards for comparable industries. The International Standards Organisation has published the following that is relevant:

- ISO 17799:2005(E). Information Technology – Security Techniques – Code of Practice for Information Technology Security Management.

Additional information on ICAO Security Requirements is provided in the Appendix to Part B.

<p>Req. Number/Source</p> <p>ANSPCRA1.4</p>	<p>An air navigation service provider shall establish a security management system to ensure:</p> <ul style="list-style-type: none"> (a) the security of its facilities and personnel so as to prevent unlawful interference with the provision of services; (b) the security of operational data it receives or produces or otherwise employs, so that access to it is restricted only to those authorised. <p>The security management system shall define:</p> <ul style="list-style-type: none"> (a) the procedures relating to security risk assessment and mitigation, security monitoring and improvement, security reviews and lesson dissemination; (b) the means designed to detect security breaches and to alert personnel with appropriate security warnings; (c) the means of containing the effects of security breaches and to identify recovery action and mitigation procedures to prevent re-occurrence. <p>An air navigation service provider shall ensure the security clearance of its personnel, if appropriate, and coordinate with the relevant civil and military authorities to ensure the security of its facilities, personnel and data.</p>
<p>Analysis of Requirements</p>	<p>Scope: This paragraph describes the scope of the Regulation as physical security (i.e. facilities, personnel and data). The prime security responsibility of an ANSP is the protection of the air navigation services but there is also a wider responsibility under ICAO to support the security of other parts of the air transport system such as in-flight security.</p> <p>Threats: The types of threat to air navigation services are:</p> <ul style="list-style-type: none"> ▪ Physical Threats. These include gaining access to premises, causing damage, attacking personnel or otherwise disrupting the provision of the air navigation service by physical means; ▪ Cyber Threats. These are threats to the information or the data, held by the ANSP, used both for operational and management purposes, by hackers and malicious software; ▪ Electromagnetic Threats. This threat is the use of electromagnetic radiation to disrupt or deny the provision of the air navigation service by interference with its communications, navigation or radar sensors. <p>The sources of threat to aviation may be from sources that will vary according to the state concerned, political and other factors and that will change with time (e.g. terrorism, political extremism, social unrest, criminal activity).</p> <p>It is recommended that the NSA should agree with the ANSP the threat assessment that is appropriate for each facility and the type of</p>

	<p>response that is needed. The threat assessment should be made in conjunction with appropriate national government and/or military agencies.</p> <p>Security Management System: The Security Management System (SMS) consists of the security measures that are in place to ensure the continued performance of the ANSP and its ATM facilities in order to meet ATM service requirements in the current threat environment documented in a Security Manual. It should also include the interfaces to other organisations and any dependencies upon them. The Security Manual should be used by staff and by auditors who will establish that the ANSP meets the security requirements of the NSA.</p> <p>The Security management System including the threat analysis should be reviewed periodically to account for changes in circumstances.</p> <p>Civil/Military Support. Specific mention is made in the EC Regulation of coordination with national civil and military authorities for security clearance of personnel and for ensuring the security of facilities, personnel and data. The ways in which this support will be provided will depend entirely on the national organisations concerned and national practice.</p>
<p>Criteria</p>	<p>The criteria to be checked are:</p> <ul style="list-style-type: none"> • does the Security management System of the ANSP meet the security standards for certification set by the NSA? • do the operations and practice of the ANSP comply with the documented requirements of their own Security management System?
<p>A way to comply</p>	<p>At national level there should be an authority -National Security Authority- responsible for the security of the information (governmental sensitive data protection, classified material, information networks, crypto/keys, etc). This authority is also responsible for approval and accreditation of new networks/systems, audits/inspections (including physical security of facilities), training in INFOSEC and INFOSEC regulations. Its responsibilities also include the issuing of security clearances for all the nationals.</p> <p>Therefore co-ordination with this authority is fundamental, and in accordance with the EC regulation. This co-ordination should be done through the national AVSEC authority (normally belonging to DGCA), nominated in all nations and responsible for the national AVSEC program. The ANSP Security program should be part of it (as it is now for Airline Operators and Airports).</p> <p>As an indication of the range of the security requirements needed to meet the EC Regulation, the following list of headings for an Security management System is taken from ISO 17799:</p> <ul style="list-style-type: none"> • Risk Assessment and Treatment - to identify, quantify and prioritise threats and risks against criteria and objectives relevant to the organisation and the appropriate controls to reduce the risk;

	<ul style="list-style-type: none"> • Security Policy - a statement of the management commitment, direction and support for information security; • Organising Information Security - a description of the organisation of security within the organisation, the roles and responsibilities of each manager, department and staff member; • Asset Management - a description of the ANSP, its operations (internal and outsourced), its assets and their ownership, and any other aspects relevant to maintenance of adequate security. Assets should include information assets and their classification; • Human Resources Security - the processes to ensure that all employees, contractors and other personnel meet their security responsibilities and security requirements through security screening and training. If external military or civil government organisations are used, the process and responsibilities should be explained; • Physical and Environmental Security - to prevent unauthorised physical access, damage or interference with the premises or information of the ANSP. The support from national government or military authorities and the respective responsibilities should be explained; • Communications and Operational Management - to ensure the correct and secure operation of communications and information processing facilities from internal departments and third parties in normal use and with system failures; • Information Access Control - to control access to information; • Information Systems Acquisition, Development and Maintenance - to ensure that security is an integral part of information systems during all phases of design, development, testing, implementation and maintenance; • Information Security Incident Management - to ensure that information security events and weakness are reported in a manner to allow timely corrective action to be taken; • Business Continuity Management - to counteract interruptions to the air navigation services from the effects of security incidents or failures and to ensure their timely resumption; • Compliance - to show how all statutory, regulatory or contractual security requirements are met.
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<p>Evidence</p>	<p>There are two stages to show the evidence of compliance:</p> <p>Stage 1 involves a detailed analysis of the completeness and suitability of the Security Management System (SMS) to meet the specific security requirements for the ANSP. Each ANSP should supply to the NSA a copy of the Security Management System documentation with a completed checklist showing how all the requirements of the EC CR Regulation are met, a statement of where requirements are met by other organisations and all supporting documents. The checklist should be compiled by the NSA (e.g. be based on ISO 17799) and it should be composed of the specific requirements for the ANSP which reflect the security risk. The result of successfully completing Stage 1 will be an approved SMS</p> <p>Stage 2 requires that a regular, periodic audit of the organisation and operations of the ANSP should be carried out by the NSA. This should include a sample inspection of actual security organisation, personnel, operations and procedures and documentation using the checklist of the requirements of the NSA. The result of Stage 2 will be an assessment of state of security in the ANSP showing areas where the security requirements are met and areas where improvements are needed.</p> <p>As an example, NSA should normally requires the elaboration of a Security plan, which includes:</p> <ul style="list-style-type: none"> • a description of the physical and technical security measures (including data) implemented in the facilities • a description of the security procedures; security clearances, access control, inspections, training, organisation (security officer and staff), security feed back from occurrences, etc. • an emergency and contingency plan in case of intentional disruption/unlawful interference/attack, or unintentional failure or natural occurrences. This plan should include back up systems <p>This is in line with the provisions of the EC regulation.</p> <p>The plan has to be approved by NSA, to be coordinated with AVSEC authority in DGCA, which may also carry out audits and inspections to ensure the efficiency and adequacy of the plan.</p>
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Appendix Part B1 - HUMAN FACTORS Deliverables Mapped to Annex 2 3. Safety of Services

Relevant deliverables below are mapped against the Annex II.3. The deliverables are accessible on the web page

http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#1

A number of HF methods/ tools are available to support Safety Achievement, Promotion, Risk Assessment and Mitigation.

- **HERA** (Human Error in ATM) are tools and methods for the prediction, detection and management of human error in ATM. These tools/methods are dedicated to the human factors perspective in incident /accident Investigation, safety management and prediction of potential new forms of errors arising from new technology;
- **TRM** (Team Resource Management) is a training course for controllers which aims to develop positive attitudes and behaviours towards teamwork skills and human performance in ATC helping to reduce or minimise the impact of teamwork related errors within ATM systems;
- **HF Case** is a comprehensive and integrated approach to ensure that the design and implementation of a technical, human, and/or procedural system can deliver the desired performance improvements;
- **SHAPE** (Solutions for Human Automation Partnerships in European ATM) provides a range of methods/tools to assess the HF issues (such as trust, situational awareness, teams, skill set requirements, recovery, workload, ageing and to measure the impact of automation on the controller performance);
- **HIFA** (Human Factors Integration in Future ATM Systems) http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#6
HIFA is a web-based tool developed for project managers, system designers and human factors specialists and dedicated to the integration of human factors in the development of new ATM systems. For each phase of the system life cycle, it defines the human factors aspects to be considered and the human-factors-related tasks to be undertaken. It also provides a list of methods and tools to support the tasks.

A more detailed mapping is given for each section of Annex II.3

Annex II - §3.1.2 - SAFETY ACHIEVEMENT (Quantitative safety levels and ATM Operational and Technical occurrences to be investigated)

HERA

http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#5

- Human Factors Module – Human Factors in the Investigation of Accidents and Incidents (HUM:ET1.ST.13.3000-REP-02);
- Short Report on Human Factors on Human Performance Models and Taxonomies in Human Error in ATM (HERA) (HRS/HSP-002-REP-02);
- The investigation of Human Error in ATM Simulation (incl appendices) - (HRS/HSP-002-REP-05);

- The investigation of Human Error in ATM Simulation – Toolkit (HRS/HSP-002-REP-06);
- The Human Error in ATM Technique (HERA-JANIUS) (HRS/HSP-002-REP-03);
- The Development of a Safety Management Tool within ATM (HERA-SMART) (HRS/HSP-002-REP-08);
- A method of predicting Human Error in ATM (HERA-PREDICT) (HRS/HSP-002-REP-07).

Annex II - §3.1.4 - SAFETY PROMOTION

TRM

http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#8

- Guidelines for Developing and Implementing Team Resource Management (HUM:ET1.ST.01.1000-REP-01);
- Human Factors Module Stress (HUM:ET1.ST.13.2000-REP-01);
- Human Factors Module : Interpersonal Communication (HUM:ET1.ST.13.1000-REP-02);
- Human Factors Module : Critical Incident Stress Management (HUM:ET1.ST.13.3000-REP-01);
- Team Resource Management Test and Evaluation (HUM.ET1.ST.10.2000-REP-01);
- TRM Pilot Course Material –CD.

Annex II - §3.2 - RISK ASSESSMENT AND MITIGATION

HERA

http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#8

- Human Factors Module – Human Factors in the Investigation of Accidents and Incidents (HUM:ET1.ST.13.3000-REP-02);
- The investigation of Human Error in ATM Simulation (incl appendices) - (HRS/HSP-002-REP-05);
- The investigation of Human Error in ATM Simulation – Toolkit (HRS/HSP-002-REP-06);
- The Human Error in AM Technique (HERA-JANIUS) (HRS/HSP-002-REP-03);
- The Development of a Safety Management Tool within ATM (HERA-SMART) (HRS/HSP-002-REP-08);
- A method of predicting Human Error in ATM (HERA-PREDICT) (HRS/HSP-002-REP-07).

HF CASE

http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#6

- The Human Factors Case : Guidance for Human Factors Integration (HRS/HSP-003-GUI-01).

SHAPE

http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#4

- Human Factors Integration in Future ATM Systems – Methods and Tools (HRS/HSP-003-REP-03);
- Guideline for Trust in Future ATM Systems : Measures (HRS/HSP-005-GUI-02)
- The development of Situation Awareness Measures in ATM Systems (HRS/HSP-005-REP-01);

- A Tool for the Assessment of the Impact of Change in Automated ATM Systems on Mental Workload (HRS/HSP-005-REP-03);
- Managing System Disturbances in ATM : Background and Contextual Framework (HRS/HSP-005-REP-06);
- A Measure to Assess the Impact of Automation on Teamwork (HRS/HSP-005-REP-07).

HIFA

http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#6

- Human Factors Integration in Future ATM Systems – Design Concepts and Philosophies (HRS/HSP-003-REP-01);
- Human Factors Integration in Future ATM Systems – Identification of Tasks and Development of Scenarios (HRS/HSP-003-REP-02);
- Human Factors Integration in Future ATM Systems – Methods and Tools (HRS/HSP-REP-03).

Appendix Part B2 - ICAO Security Requirements

1. Chicago Convention

Security in international civil air transport is basically covered by the 1944 Chicago Convention. The Conventional system includes resolutions, Annexes to the Conventions, standards and guidance material. The SES Framework Regulation recognises the primacy of the rules of international law established under these instruments over Community Law.

This appendix has been included to assist ANSPs to address matters that are outside the certification requirements of the CR but which may be necessary to meet national security requirements.

2. Responsibilities under ICAO

a. Services.

The signatories to the Chicago Convention are member States and the responsibility to fulfil obligations is therefore embodied in national legislation. Amongst the services that each state is required to provide and which therefore may have some impact on civil aviation security are:

- air traffic service (air traffic control, alerting services, flight information services);
- aircraft accident and incident investigation;
- emergency services.

b. Definition.

Aviation Security is defined according to ICAO Annex 17 as:

“a combination of measures and human and material resources intended to safeguard civil aviation against acts of unlawful interference”.

This definition has been partly endorsed by the European Parliament and Council and which is used by Regulation 2320:2002 that applies to airports and airlines.

While safety relates to the prevention of *accidental* events which can affect material or people, security is the prevention of *intentional* acts which aims to affect aircraft, infrastructure or people.

c. Elements of Aviation Security.

According to ICAO the institutional framework for aviation security at State level basically consists of the following elements:

- designate an appropriate authority and inform ICAO;
- establish a written national aviation security plan that will include the state policy on all aspects including air navigation services;
- require national airports and aircraft operators to establish a security plan compliant with the national security policy;
- establish the means to review the level of threat within its territory;
- establish the means of coordinating activities between departments, agencies and other parties involved;
- draw up contingency plans;

- establish the development and implementation of training programs.

The main operational functions of ATC in aviation security are:

- the timely identification of a security incident;
- to inform and coordinate the incident with the appropriate civil and military authorities;
- to assist the aircraft with a new routing or to proceed to an alternate airport;
- to maintaining a safe separation with other aircraft and to support the captain as much as possible;
- assist with post-incident analysis and review.

ICAO provides further guidance material for aviation security in ICAO Doc 8973. The contents list is reproduced below showing the items that are relevant to air navigation service security. In particular, the Appendices give guidance about how to conform to the regulations and to formulate national legislative material.

ICAO is in a process of reviewing the present regulations on in-flight and ATM security to cope with the new forms of threat like aircraft used as a weapon and MANPADS and to improve the alerting communication procedures and response procedures.

ICAO Doc 8973 - Security Manual for Safeguarding Civil Aviation Against Acts of Unlawful Interference (Restricted) contains a summary of all the ICAO documents and annexes that refer to aviation security.

A selection of the topics from the Table of Contents of ICAO Doc 8973 that apply to air navigation services is printed below. Those deleted refer to airlines and airports.

ICAO Doc. 8973 Part I — Guidance Material on ICAO Standards and Recommended Practices	Ref. in 8973
Introduction	I-1
Chapter 1. Definitions.	I-1-1
Chapter 2. General principles .	I-2-1
2.1 Aims and objectives.	I-2-1
2.2 Effective civil aviation security.	I-2-2
2.3 Security and facilitation.	I-2-3
Chapter 3. Organization.	I-3-1
3.1 The appropriate authority of security	I-3-1
3.2 Civil aviation security policy and regulatory section, principles, staff.	I-3-2
3.3 The national civil aviation security programme.	I-3-5
3.4 National aviation security coordination.	I-3-12
3.5 International cooperation.	I-3-13
3.6 Threat assessment and risk management.	I-3-16
3.7 Research and development of security equipment.	I-3-17
3.8 Security training programmes.	I-3-18
3.9 Supporting facilities.	I-3-24
3.13 Response to airport incidents.	I-3-29
3.14 Contingency plans.	I-3-33
Chapter 5. Management of response to acts of unlawful interference.	I-5-1
5.1 Operational aspects.	I-5-1
5.2 Incidents involving aircraft, ATC.	I-5-2
5.3 Collection and transmission of information.	I-5-6
5.4 Review and analysis.	I-5-8
5.5 Report.	I-5-9

Part C: Human Resources

Explanatory note

This part of the document deals with the regulations covering Human Resources (Licensing, Training and Rostering) within an ANSP.

The CRs specifically require that the ATM service provider “shall ensure that staff are adequately trained, motivated and competent for the job they are required to do, in addition to being properly licensed if so required”. The CRs also require that the provider of air traffic services must have, for personnel involved in safety related tasks, “the rostering arrangements in place to ensure sufficient capacity and continuity of service”.

Scope of the requirements

The requirements covered are listed in “General requirements for the provision of air navigation services” (Annex I) and “Specific requirements for the provision of air traffic services” (Annex II). The detailed mapping of the requirements follows these Annexes.

ANNEX I

GENERAL REQUIREMENTS FOR THE PROVISION OF AIR NAVIGATION SERVICES

5. HUMAN RESOURCES

ANSPCRA1.5 -1

An air navigation service provider shall employ appropriately skilled personnel to ensure the provision of its services in a safe, efficient, continuous and sustainable manner.

ANSPCRA1.5 -2

In this context, it shall establish policies for the recruitment and training of personnel.

ANNEX II

SPECIFIC REQUIREMENTS FOR THE PROVISION OF AIR TRAFFIC SERVICES

3 SAFETY OF SERVICES

3.1. Safety management system

3.1.2 Requirements for safety achievement

ATSPCRA2.3.1.2
Para 1 –
« Medical fitness »

Within the operation of the SMS, a provider of air traffic services shall:
ensure that personnel are adequately trained and competent for the job they are required to do, in addition to being properly licensed if so required **and satisfying applicable medical fitness requirements (competency)**;

3.3. Safety requirements for engineering and technical personnel undertaking operational safety related tasks

ATSPCRA2.3.3
Para 1 -

A provider of air traffic services shall ensure that technical and engineering personnel including personnel of subcontracted operating organisations who operate and maintain ATM equipment approved for its operational use have and maintain sufficient knowledge and understanding of the services they are supporting, of the actual and potential effects of their work on the safety of those services, and of the appropriate working limits to be applied.

ATSPCRA2.3.3
Para 2 –
« rostering »

With regard to the personnel involved in safety related tasks including personnel of subcontracted operating organisations, the provider of air traffic services shall document the adequacy of the competence of the personnel; **the rostering arrangements in place to ensure sufficient capacity and continuity of service**; the personnel qualification schemes and policy, the personnel training policy, training plans and records as well as arrangements for the supervision of non-qualified personnel. It shall have procedures in place for cases where the physical or mental condition of the personnel is in doubt.

ATSPCRA2.3.3
Para 3 –
« location, duties
and rostering
methodology »

A provider of air traffic services shall maintain a register of information on the numbers, status and deployment of the personnel involved in safety related tasks. The register shall:

- (a) identify the accountable managers for safety related functions;
- (b) record the relevant qualifications of technical and operational personnel, against required skills and competence requirements;
- (c) **specify the locations and duties to which technical and operational personnel are assigned, including any rostering methodology.**

Rationale behind the guidelines

While preparing and planning the processes to comply with the CRs for Human Resources it is important for ANSPs to take into account the Directive of the European Parliament and of the Council of a Community Air Traffic Controller Licence which should become Community Law early in 2006.

The EC Directive specifies the regulatory requirements for air traffic controllers. This EC Directive will be binding on all Member States and the Articles specifically concerning Medical and Language requirements should be addressed when implementing competence and licensing common requirements.

EUROCONTROL has published guidance material to support ECAC Member States in their efforts to comply with ESARR 5. Some of this guidance material has been assessed by expert panels established by the SRC. Material identified as an “Acceptable Means of Compliance” with ESARR 5 is identified in SRC DOC 13.

The SRC has also identified a list of EUROCONTROL deliverables which may be used as a source of “Guidance Material” in the implementation of ESARR 5 (refer para 8.3, ESARR 5).

“Guidelines for Common Core Content and Training Objectives for Air Traffic Controllers” (CCC) is recognised as the minimum training standard for the Initial Training of ATCOs to satisfy the requirements of ESARR 5 and the EC Directive on ATCO Licensing

Note: *ANSPs should note that the language requirements specified in the EC Directive are far more specific than the requirements of ICAO or ESARR 5 in that Member States shall ensure that air traffic controllers can demonstrate the ability to speak and understand English language to a satisfactory standard. Member States may also impose local language requirements when deemed necessary for safety purposes.*

ANSP - HUMAN RESOURCES (Annex I – 5)

<p>Req. Number/Source ANSPCRA1.5 - 1</p>	<p>An air navigation service provider shall employ appropriately skilled personnel to ensure the provision of its services in a safe, efficient, continuous and sustainable manner.</p>
<p>Analysis of Requirements</p>	<p>For Air Traffic Controllers - ANSPs have to implement licensing and training processes in accordance to the existing national legislation, and ESARR5 where relevant; - for Member States, the EC Directive on a Community Air Traffic Controller License will have to be transposed into national legislation after it becomes Community law in 2006.</p> <p>For Engineering and Technical Personnel, see requirement ATSPCRA2.3.3 para 1</p>
<p>Criteria</p>	<p>Approved training (even “outsourced”) and licensing processes must be <u>in place for ATCOs, for example:</u></p> <ul style="list-style-type: none"> • Initial Training (Basic, Rating) <ul style="list-style-type: none"> ◦ Initial Training should comply at a minimum with the objectives of the Common Core Content Training; • Unit Training Plans approved by the NSA should be in place; • OJT Instructors must have followed an Approved Training Course and have passed any assessment/examinations; • Competence Assessment Schemes must be in place; • Air traffic controllers must have Refresher and Emergency training.
<p>A way to comply</p>	<p>The following documents may be used as guidance:</p> <ul style="list-style-type: none"> • European Manual of Personnel Licensing - Air Traffic Controllers; • European Manual of Personnel Licensing Air Traffic Controllers: Guidance on Implementation. <p><i>Note: A full list of EUROCONTROL deliverables to support the training of ATCOs is found at Appendix Part C Item 1</i></p>
<p>Evidence</p>	<p>ESARR5 checklist, for example:</p> <ul style="list-style-type: none"> • student air traffic controller licences; • air traffic controller licenses; • records of initial training; • records of suspension, revocation or variation of licenses or associated ratings and endorsements; • unit training plans; • Transitional, pre-OJT and OJT training phases; • refresher training;

	<ul style="list-style-type: none"> • emergency training; • training reports; • feedback from student and trainee controllers and OJTIs; • documented competence scheme; • competence records; • audits by the designated Authority.
Additional Information	Mapping of EC directive on a Community Air Traffic Controller License and HUM deliverables is provided in Appendix Part C. Item 2.

Req. Number/Source	ANSPCRA1.5 – 2
	In this context, it shall establish policies for the recruitment and training of personnel.
Analysis of Requirements	<p>Training covered under analysis of ANSPCRA1.5.1</p> <p>ANSPs must have transparent, reliable, valid, objective policies, processes and tools in place for the selection and recruitment of personnel.</p>
Criteria	<ul style="list-style-type: none"> • application of standards in the application, scoring and evaluation of selection tests; • appropriate training of staff; • documentation of assessment rules and results; • a clear policy on the basic entry requirements (e.g. age limit, education, medical requirements); • defined criteria for person specification/ job profile to assess candidates.
A way to comply	<p>The following documentation may be used as guidance:</p> <ul style="list-style-type: none"> • Guidelines for Selection Procedures & Tests for Ab initio Trainee Controllers; • Characteristics of Recruitment & Pre-selection of Ab initio Trainee Controllers; • selection Tests, Interviews and Assessment Centres for Ab initio; • controllers: Implementation guidelines; • selection tests, Interviews and Assessment Centres for Ab initio; • Trainee Controllers: Technical Supplement; • FEAST toolkit.
Evidence	<ul style="list-style-type: none"> • description of recruitment and selection process and policy; • records of staff trained in selecting and recruitment process e.g. interviewing and assessing; • policy description and entry requirements; job descriptions and profiles; • database to follow on candidates recruited e.g. Initial training success rates and attrition rates.

ATSP - SAFETY OF SERVICES (Annex II. 3)

SAFETY MANAGEMENT SYSTEM

<p>Req. Number/Source ATSPCRA2.3.1.2 para 1 (medical fitness)</p>	<p>Within the operation of the SMS, a provider of air traffic services shall: ensure that personnel are adequately trained and competent for the job they are required to do, in addition to being properly licensed if so required and satisfying applicable medical fitness requirements (competency);</p>
<p>Analysis of Requirements</p>	<p>For ATCOs the issuing of medical certificates must be consistent with the provisions of ICAO Annex 1 and the Requirements for European Class 3 Medical Certification of Air Traffic Controllers</p>
<p>Criteria</p>	<ul style="list-style-type: none"> • a process in place to ensure that student air traffic controllers and air traffic controllers, including on the job training instructors, hold current medical certificates; • medical certificates must be issued by a competent medical body of the NSA or by medical examiners approved by the NSA; • the issue of medical certificates should be consistent with the provisions of ICAO Annex 1 and the Requirements for European Class 3 Medical Certification of ATCOs; • procedures are in place for monitoring controllers for psychoactive substance abuse and for providing advice to controllers taking medicines; • procedures are in place to prevent controllers exercising the privileges of their licenses while under the influence of psychoactive substances or medically unfit; • procedures are in place for informing the Designated Authority when a student or air traffic controller is assessed as medically unfit.
<p>A way to comply</p>	<p>Implementation of the following:</p> <ul style="list-style-type: none"> • Requirements for European Class 3 Medical Certification of Air Traffic Controllers; • ICAO Annex 1.
<p>Evidence</p>	<p>ESARR5 checklist, for example:</p> <ul style="list-style-type: none"> • medical records • guidance on taking prescription and non prescription medicines • medical checks

This requirement also concerns Safety and is referred to in Part B- Safety.

SAFETY REQUIREMENTS FOR ENGINEERING AND TECHNICAL PERSONNEL UNDERTAKING OPERATIONAL SAFETY RELATED TASKS (ANNEX II - ARTICLE 3.3)

<p>Req. Number/Source ANSPCRA2.3.3 para 1</p>	<p>A provider of air traffic services shall ensure that technical and engineering personnel including personnel of subcontracted operating organisations who operate and maintain ATM equipment approved for its operational use have and maintain sufficient knowledge and understanding of the services they are supporting, of the actual and potential effects of their work on the safety of those services, and of the appropriate working limits to be applied.</p>
<p>Analysis of Requirements</p>	<p>Requirements are equivalent to ESARR 5 Section 5.3 applicable to ATS providers (to note that the requirements of 5.3.2 apply directly to operating organisations, while in the CR they apply indirectly, via the service provider organisation).</p>
<p>Criteria</p>	<p>Basic criteria are defined in:</p> <ul style="list-style-type: none"> • EAM 5 / GUI 3, Section 2.2; • EAM 5 / GUI 4, Edition 2.0, Appendix B, ESARR 5 reference 5.3.2 a), b) and e) <p>An ANSP should ensure that the technical and engineering personnel are properly trained and qualified to perform the assigned tasks (Section 5.3 ESARR5).</p> <p>Including procedures:</p> <ul style="list-style-type: none"> - for on the job training. - for refresher training - for emergency training <p>Those performing on the job training are competent and have the appropriate experience to be granted this responsibility.</p> <p>They have competence schemes to ensure that the personnel are qualified and competent to perform the assigned task.</p> <p>Competence scheme is fully documented.</p> <p>Internal procedures of dealing with engineering and technical personnel who have met the ongoing experience requirement.</p> <p>Procedures to prevent technical and engineering personnel exercising their assigned tasks while knowing or suspecting that the physical or mental conditions of individuals render them unfit for such tasks.</p>

<p>A way to comply</p>	<p>At present, no acceptable means of compliance has been recognised by SRC as regards the ESARR 5 provisions for technical and engineering personnel.</p> <p>Nevertheless the following documents are valuable to be considered:</p> <ul style="list-style-type: none"> - Guidelines for a Common Basic Level of Technical Training for Air Traffic Safety Electronics Personnel - Guidelines for a Common Qualification Level of Technical Training for Air Traffic Safety Electronics Personnel - Guidelines for a competence assessment scheme for Engineers and Technical Personnel : available March 2006 <p>Usage of the procedures of the EUROCONTROL Generic Safety Management Manual – Part Two, Chapter 7 Competency Assurance can be adapted and adopted by ANSP to fulfil this CR</p>
<p>Evidence</p>	<p>To be based on the referred sections of EAM 5/ GUI 4, Appendix B. This material includes comprehensive guidance on possible evidence to show compliance with the ESARR 5 provisions on ATSEPs and possible ways to assess them.</p> <p>ESARR5 checklist, for example.</p> <ul style="list-style-type: none"> - records of initial training - records of OJT training - records of special training to obtain qualification - course plan - training reports - internal audit reports - documented competence scheme - competence records - medical records
<p>Additional information</p>	<p>On relevant deliverables, refer to Appendix Part C Item 1 – Training .</p>

This requirement also concerns Safety and is referred to in Part B- Safety.

<p>Req. Number/Source</p> <p>ANSPCRA2.3.3 para 2</p> <p><i>(analysis addressing specifically rostering”)</i></p>	<p>With regard to the personnel involved in safety related tasks including personnel of subcontracted operating organisations, the provider of air traffic services shall document the adequacy of the competence of the personnel; the rostering arrangements in place to ensure sufficient capacity and continuity of service; the personnel qualification schemes and policy, the personnel training policy, training plans and records as well as arrangements for the supervision of non-qualified personnel. It shall have procedures in place for cases where the physical or mental condition of the personnel is in doubt.</p>
<p>Analysis of Requirements</p>	<p>See ANSPCRA1.5-1</p> <p>Rostering not covered by EC Directive on ATCO Licensing</p> <p>However, an ATSP would take on board national rules on working time that would need to be respected.</p> <p>Also have specific rules on shiftwork stated in the ATSP working conditions</p> <p>When determining the staffing requirements needs to take into account staff needed for ops duties and non ops duties (training, projects, refresher training etc)</p> <p>Note:- Whereas much of the means to comply documentation referred to specifically refers to ATCOs the documents can equally be applied to other personnel</p>
<p>Criteria</p>	<ul style="list-style-type: none"> • have a short term and long term planning process in place • have in place appropriate methodology to determine the staffing requirement at various times of the year. • details of the roster actually worked to ensure sufficient capacity and continuity of • service • have a policy/procedure in place to deal with unexpected absences • adhere to working time rules in place when establishing the roster
<p>A way to comply</p>	<ul style="list-style-type: none"> • ATS Manpower Planning in Practice: Introduction to a Qualitative and Quantitative Staffing Methodology • guidelines for ATCO Manpower Planning Processes • LAMPS – Long term ATCO Manpower Planning Simulation • collaborative and harmonised ATCO Manpower Planning (CHAMP) Process
<p>Evidence</p>	<ul style="list-style-type: none"> • comparison with planned and actual roster. • tracking of lack of sufficient capacity and discontinuity of service due to staff shortage. • attendance records and watch records • check rosters for compliance with working time requirements (e.g. SRATCOH in UK)
<p>Additional information</p>	<p>On relevant deliverables, refer to Appendix Part C Item 1 – Manpower Planning</p>

This requirement also concerns Safety and is referred to in Part B- Safety.

<p>Req. Number/Source</p> <p>ATSPCRA2.3.3 para 3</p>	<p>A provider of air traffic services shall maintain a register of information on the numbers, status and deployment of the personnel involved in safety related tasks.</p> <p>The register shall:</p> <ul style="list-style-type: none"> (a) identify the accountable managers for safety related functions; (b) record the relevant qualifications of technical and operational personnel, against required skills and competence requirements; (c) specify the locations and duties to which technical and operational personnel are assigned, including any rostering methodology.
<p>Analysis of Requirements</p>	<p>The register shall identify the accountable managers for safety related functions, record the relevant qualifications of technical and operational personnel, against required skills and competence requirements and specify the locations and duties to which technical and operational personnel are assigned, including any rostering methodology.</p> <p>Rostering is not covered by EC Directive. However, an ATSP should take on board national rules on working time that would need to be respected.</p> <p>An ATSP should have specific rules on shiftwork stated in the ATSP working conditions</p> <p>When determining the staffing requirements needs, an ATSP should take into account staff needed for ops duties and non ops duties (training, projects, refresher training etc).</p>
<p>Criteria</p>	<p>An ATSP should:</p> <ul style="list-style-type: none"> • have in place appropriate methodology to determine the staffing requirement at various times of the year; • details of the roster actually worked to ensure sufficient capacity and continuity of Service; • have a policy/procedure in place to deal with unexpected absences; • adhere to working time rules in place when establishing the roster; • have transparent, reliable, valid and objective methods and tools for rostering staff. <p>Basic criteria are defined in EAM 5 / GUI 4 v2.0, Appendix B, ESARR 5 reference 5.3.2 c) sub bullet v)</p>

<p><i>A way to comply</i></p>	<p>To implement this CR, ATSP may use the following documentation:</p> <ul style="list-style-type: none"> • ATS Manpower Planning in Practice: Introduction to a Qualitative and Quantitative Staffing Methodology; • Guidelines for ATCO Manpower Planning Processes; • Managing Shiftwork in European ATM – Literature Review; • Shiftwork practices study in ATM and related industries.
<p><i>Evidence</i></p>	<ul style="list-style-type: none"> • checking of planned roster with actual roster; • attendance records and watch records; • check rosters for compliance with working time requirements (e.g. SRATCOH in UK). • Based on the referred section of EAM 5 / GUI 4
<p><i>Additional information:</i> On relevant deliverables, refer to Appendix Part C Item 1 – Manpower Planning.</p>	

Appendix Part C - SES Common Requirements - List of relevant DAS/HUM Deliverables

A list of Human Factors Management deliverables in the area of Training and Licensing, Recruitment and Selection, Manpower Planning and Human Factors relevant to the SES CRs are shown below.. Further information can be obtained from the designated web sites/pages.

TRAINING

http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#13

LICENSING

http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#19

Technical and Engineering Staff

- Guidelines for a Common Basic Level of Technical Training for Air Traffic Safety Electronics Personnel : HRS/TSP-002-GUI-03;
- Guidelines for a Common Qualification Level of Technical Training for Air Traffic Safety Electronics Personnel: HRS/TSP-002-GUI-02;
- Guidelines for a competence assessment scheme for Engineers and Technical Personnel: available March 2006.

Initial Training: Common Core Content

- Guidelines for ATCO Common Core Content Initial Training: HRS/TSP-002-GUI-04.

Unit Training: Development Training

- Air Traffic Controller Training at Operational Units: 05.4000-GUI-01;
- Air Traffic Controller Development Training - OJTI Refresher Course: HRS/TSP-004-GUI-01;
- ATCO Development Training OJTI Course: HRS/TSP-004-GUI-06.

Unit Training: Unusual/Emergency Situation Training

- Guidelines for Controller Training in the Handling of Unusual/Emergency Situations: HRS/TSP-004-GUI-05;
- Unusual/Emergency Situations Training: HRS/TSP-003-CBT-11;
- Guidelines for Refresher Training for Air Traffic Controllers: HRS/TSP-004-GUI-04.

Common Core Content – Training Plans

- Guidelines for ATCO Common Core Content Initial Training: HRS/TSP-002-GUI-04;
- Area Control Surveillance Rating with Radar and Terminal Endorsements - Training Plans: HRS/TSP-006-GUI-02;
- Approach Control Surveillance Rating with Radar and Terminal Endorsements - Training Plans: HRS/TSP-006-GUI-03;
- ATCO Basic Training - Training Plans: HRS/TSP-006-GUI-04;
- ATCO Rating Training - Training Plans: Aerodrome Training: HRS/TSP-006-GUI-05;

- ATCO Rating Training - Training Plans: Aerodrome Training - Annex B: Detailed Training Plans: HRS/TSP-006-GUI-06.

Language Proficiency

- Proficiency Test in English Language for Air Traffic Controllers : 05.3000-GUI-01.

Licensing

- European Manual of Personnel Licensing - Air Traffic Controllers: 08.10000-STD-01;
- European Manual of Personnel Licensing - Air Traffic Controllers: Guidance on Implementation: 08.10000-GUI-01;
- Guidelines for Competence Assessment :08.10000-GUI-03.

Medical Requirements

- Requirements for European Class 3 Medical Certification of Air Traffic Controllers: 08.10000-STD-02;
- Consistency between Requirements for European Class 3 Medical Certification of Air Traffic Controllers and ICAO SARPS - Annex 1: 08.10000-REP-01.

RECRUITMENT AND SELECTION

http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#12

- Guidelines for Selection Procedures and Tests for Ab initio Trainee Controllers: HRS/MSP-002-GUI-01;
- Characteristics of Recruitment and Preselection of Ab initio Trainee Controllers: HRS/MSP-002-GUI-02;
- Selection Tests, Interviews and Assessment Centres for Ab initio Controllers: Implementation guidelines: HRS/MSP-002-GUI.03-01;
- Selection Tests, Interviews and Assessment Centres for Ab initio Trainee Controllers: Technical Supplement: HRS/MSP-04.1000-GUI-03-02;
- First European ATCO Selection Test(FEAST) Package: available 2006.

MANPOWER PLANNING

http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#9

- ATS Manpower Planning in Practice: Introduction to a Qualitative and Quantitative Staffing Methodology : HUM.ET1.ST.02.2000-REP-01;
- Guidelines for ATCO Manpower Planning Processes: HUM.ET1.ST.03.1000-GUI-02;
- LAMPS – Long term ATCO Manpower Planning Simulation : HRS/MSP-003-REP-01;
- Collaborative and Harmonised ATCO Manpower Planning (CHAMP) Process: HRS/MSP-003-REP-02.

2. EUROCONTROL deliverables against “Directive of the European Parliament and of the Council on a Community Air Traffic Controller License”

To support ATSPs in their preparation on the coming EC Directive, which will have to be transposed in due time in the national regulations, a mapping of EUROCONTROL deliverables against the “Directive of the European Parliament and of the Council on a Community Air Traffic Controller License”⁴ is provided below.

⁴ version COM(2004) 473 final, 2004/0146 (COD), dated 12.07.2004

<p>Project of EC Directive On a Community Air Traffic Controller License</p> <p>Articles</p>	<p>Reference Material – DAS/HUM</p> <p>http://www.eurocontrol.int/humanfactors/public/site_preferences/display_library_list_public.html#1</p>
<p>Article 4 : Licensing Principles</p> <p>Article 5 : Conditions for obtaining a license</p> <p>Article 6: Conditions for maintaining ratings and keeping endorsements valid</p> <p>Article 7: Air Traffic Controller Ratings and endorsements</p>	<ul style="list-style-type: none"> • European Manual of Personnel Licensing - Air Traffic Controllers: HRS/TSP-08.10000-STD-01; • European Manual of Personnel Licensing - Air Traffic Controllers: Guidance on Implementation: HRS/TSP-08.10000-GUI-01; • Guidelines for Controller Training in the Handling of Unusual/Emergency Situations HRS/TSP-004-GUI-05; • Guidelines for Refresher Training for Air Traffic Controllers:HRS/TSP-004-GUI-04; • Guidelines for ATCO Common Core Content Initial Training: HRS/TSP-002-GUI-04; • Guidelines for the Development of Unit Training Plans : (in publication); • Air Traffic Controller Training at Operational Units : HRS/TSP-05.4000-GUI-01; • ATCO Development Training – OJTI Course:HRS/TSP-004-GUI-06; • ATCO Development Training – OJTI Refresher Course: HRS/TSP-004-GUI-01.
<p>Article 8: Linguistic Requirements</p>	<ul style="list-style-type: none"> • Proficiency Test in English Language for Air Traffic Controllers: HRS/TSP-05.3000-GUI-01; • English Language Proficiency Aeronautical Communication (ELPAC) – under development.
<p>Article 9: Medical Requirements</p>	<ul style="list-style-type: none"> • Requirements for European Class 3 Medical Certification of Air Traffic Controllers: HRS/TSP-08.10000-STD-02; • Consistency between Requirements for European Class 3 Medical Certification of Air Traffic Controllers and ICAO SARPS - Annex 1: HRS/TSP-08.10000-REP-01.
<p>Article 10: Certification of Training Providers</p> <p>Article 11: Accounting Management of Training Providers</p>	<p><i>To be decided</i></p>
<p>Article 12: Guarantee of compliance with competence standards</p>	<ul style="list-style-type: none"> • European Manual of Personnel Licensing - Air Traffic Controllers: HRS/TSP-08.10000-STD-01; • European Manual of Personnel Licensing - Air Traffic Controllers: Guidance on Implementation: HRS/TSP-08.10000-GUI-01; • Guidelines for Competence Assessment: HRS/TSP:08.10000-GUI-03 – Edition 2; • Guidelines for Controller Training in the Handling of Unusual/Emergency Situations: HRS/TSP HRS/TSP-004-GUI-05.

	<ul style="list-style-type: none"> • Guidelines for Refresher Training for Air Traffic Controllers:HRS/TSP-004-GUI-04; • EUROCONTROL ATCO Licensing Database.
<p>Article 13 : Mutual recognition of air traffic controller licenses</p>	<ul style="list-style-type: none"> • European Manual of Personnel Licensing - Air Traffic Controllers: HRS/TSP-08.10000-STD-01- Edition 2; • European Manual of Personnel Licensing - Air Traffic Controllers: Guidance on Implementation: HRS/TSP-08.10000-GUI-01; • EUROCONTROL ATCO Licensing Database; • Guidelines for the Development of Unit Training Plans (in publication).

In Directive:

- Guidelines for Common Core Content and Training for Air Traffic Controllers Training (Phase 1 Revised),: TRS/TSP-002-GUI-01 Guidelines for Common Core Content and Training of Air Traffic Controllers Training (Phase II), HUM.ET1.ST05.1000-GUI-02, first edition of 20.07.2000;
- New version combines both deliverables and is titled Guidelines for ATCO Common Core Content Initial Training: HRS/TSP-002-GUI-04.

Part D: Technical & Operational matters for ATSP

Explanatory note

This part of the guidance document covers matters relevant to the ATSP functions that deal with technical and operational matters.

Scope of the requirements

The requirements are listed in Annex I “General requirements for the provision of air navigation services”, and Annex II “Specific requirements for the provision of air traffic services” and are reproduced below. The detailed mapping of the requirements follows this Annex.

ANNEX I

GENERAL REQUIREMENTS FOR THE PROVISION OF AIR NAVIGATION SERVICES

1. TECHNICAL AND OPERATIONAL COMPETENCE AND CAPABILITY

ANSPCRA1.1

An air navigation service provider shall be able to provide services in a safe, efficient, continuous and sustainable manner consistent with any reasonable level of overall demand for a given airspace. To this end, it shall maintain adequate technical and operational capacity and expertise.

8. QUALITY OF SERVICES**8.1. Open and transparent provision of services**

See Part A of this Volume.

8.2. Contingency plans

ANSPCRA1.8.2

At the latest one year after certification, an air navigation service provider shall have in place contingency plans for all the services it provides in the case of events which result in significant degradation or interruption of its services.

ANNEX II

SPECIFIC REQUIREMENTS FOR THE PROVISION OF AIR TRAFFIC SERVICES

4. WORKING METHODS AND OPERATING PROCEDURES

ATSPCRA2.4

A provider of air traffic services shall be able to demonstrate that its working methods and operating procedures are compliant with the standards in the following annexes to the Convention on International Civil Aviation as far as they are relevant for the provision of air traffic services in the airspace concerned:

- Annex 2 on rules of the air (10th edition, July 2005);
- Annex 10 on aeronautical telecommunications, Volume 2 on communication procedures (6th edition, October 2001 including all amendments up to no 79);
- Annex 11 on air traffic services (13th edition, July 2001 including all amendments up to no 43).

Guidance for ATSPs – Technical & Operational matters

ANSP - TECHNICAL & OPERATIONAL COMPETENCE AND CAPABILITY (ANNEX I-1)

Quoted documents:

- European Convergence and Implementation Plan (ECIP);
- EUROCONTROL Generic Safety Management Manual

Note: The EUROCONTROL Generic Safety Management Manual has been developed within the framework of the SASI (Support to ANSPs for SMS implementation) Project with the objective to support Air Navigation Service Providers for the implementation of their Safety Management Systems. To receive your copy, please access the www.eurocontrol.int/safety and complete the html form.

<p>Req. Number/Source</p> <p>ANSPCRA1.1</p>	<p>An air navigation service provider shall be able to provide services in a safe, efficient, continuous and sustainable manner consistent with any reasonable level of overall demand for a given airspace. To this end, it shall maintain adequate technical and operational capacity and expertise.</p>
<p>Analysis of Requirements</p>	<p>General requirement that is elaborated in the other requirements of the Annexes.</p> <p>ATSP, should, inter-alia, have in place a technical infrastructure in place that meets ECIP objectives (at least Pan-European and Multi-national if applicable).</p> <p>It is assumed that the sectorisation of the given airspace is sufficient to meet the requirements of safety and efficiency, and that the acceptable work-load for controller is not exceeded.</p> <p>In addition the compliance with ESARR 3 would be an enabler of meeting the safety part of this requirement. An established Safety Management System can be derived by using the content and applying the procedures laid down in the EUROCONTROL Generic Safety Management Manual.</p>

CONTINGENCY PLANS (ANNEX I - 8.2)

<p><i>Req. Number/Source</i></p> <p>ANSPCRA1.8.2</p>	<p>At the latest one year after certification, an air navigation service provider shall have in place contingency plans for all the services it provides in the case of events which result in significant degradation or interruption of its services.</p>
<p>Analysis of Requirements</p>	<p>These plans must describe how, in case of interruption or degradation, the provision of service will be stopped or delegated. Specifically it should contain agreements with adjacent units describing actions to be taken. This could include, for example, ACCs, APP units and TWRs and actions to be taken by CFMU. The contingency plans should, preferably as an Annex, include a check-list to be used in case of a fall-back. The plan should also describe the actions to be taken when normal service provision is resumed.</p>
<p>Criteria</p>	<ul style="list-style-type: none"> • plans covering short, medium-term and long-term disruptions of service provision; • arrangements co-ordinated and agreed with adjacent units (LoA); • staff are aware of the plans and if found needed, trained in how to act.
<p>A way to comply</p>	<ul style="list-style-type: none"> • contingency plan for outage co-ordinated with adjacent ACCs and agreed in LoAs; • implementation of local contingency e.g. alternate operational/technical rooms; • smooth and controlled degradation and redundancy.
<p>Evidence</p>	<p>The plan provides evidence that the topic is taken into account. All documentation concerning co-ordination with adjacent units and “fallback training plans” for staff can also to be considered as evidence.</p>

WORKING METHODS AND OPERATING PROCEDURES (ANNEX II –4)

<p>Req. Number/Source ATSPCRA2.4</p>	<p>A provider of air traffic services shall be able to demonstrate that its working methods and operating procedures are compliant with the standards in the following annexes to the Convention on International Civil Aviation as far as they are relevant for the provision of air traffic services in the airspace concerned:</p> <ul style="list-style-type: none"> • Annex 2 on rules of the air (10th edition, July 2005); • Annex 10 on aeronautical telecommunications, Volume 2 on communication procedures (6th edition, October 2001 including all amendments up to no 79); • Annex 11 on air traffic services (13th edition, July 2001 including all amendments up to no 43).
<p>Analysis of Requirements</p>	<p>This is to prove that methods and procedures are compliant with relevant ICAO Standards or with a difference from the Standard duly notified to ICAO by the State concerned and which are then published in a supplement to the ICAO Annex and in the State’s AIP.</p>
<p>Criteria</p>	<p>NSA should specify to the ATSP what differences from ICAO Standards have been notified to ICAO by the State.</p>
<p>A way to comply</p>	<p>Establish working methods and operating procedures in accordance with the relevant ICAO Standards and differences.</p>
<p>Evidence</p>	<p>EAM 1/ GUI 7 “Guidance on the Criteria for the Assessment of Compliance with the Standards of ICAO Annex 11” Edition 1.0, provides comprehensive guidance on possible evidence to show compliance with the ICAO Annex 11 standards and possible ways to assess them.</p> <p>Result of review presented to NSA in order to keep NSA fully updated.</p>
<p>Additional information:</p>	<p>Any difference, which the Member State has notified to ICAO with regard to the standards should be clearly identified and communicated, for example, in a document containing an exhaustive list of differences from ICAO standards for all working methods and operating procedures</p>

Reference to special editions of ICAO Annexes in common requirements for the provision of air navigation services

In ANNEX II to the CRs, under “Working methods and operating procedures” there are references to special editions of the relevant ICAO Annexes.

As all ICAO Annexes are regularly replaced by a new edition at least once every three year, NSA and ATSP are highly advised to consider the applicable edition of the respective ICAO Annex, especially during the on going compliance (Article 7 of CR).

Part E: Technical and Operational Matters for CNSP

Explanatory note

This part of the guidance document covers CNSP functions that deal with technical and operational matters.

Scope of the requirements

The requirements are listed in Annex I “General requirements for the provision of air navigation services”, and Annex V “Specific requirements for the provision of communication, navigation or surveillance services” and are reproduced below. The detailed mapping of the requirements follows this Annex.

ANNEX I

GENERAL REQUIREMENTS FOR THE PROVISION OF AIR NAVIGATION SERVICES

1. TECHNICAL AND OPERATIONAL COMPETENCE AND CAPABILITY

ANSPCRA1.1

An air navigation service provider shall be able to provide services in a safe, efficient, continuous and sustainable manner consistent with any reasonable level of overall demand for a given airspace. To this end, it shall maintain adequate technical and operational capacity and expertise.

8. QUALITY OF SERVICES

8.1. Open and transparent provision of services

See Part A of this Volume.

8.2. Contingency plans

ANSPCRA1.8.2

At the latest one year after certification, an air navigation service provider shall have in place contingency plans for all the services it is providing in the case of events which result in significant degradation or interruption of its services.

ANNEX V

SPECIFIC REQUIREMENTS FOR THE PROVISION OF COMMUNICATION, NAVIGATION OR SURVEILLANCE SERVICES

1. TECHNICAL AND OPERATIONAL COMPETENCE AND CAPABILITY

CNSPCRA5.1
Para 1 -

A provider of communication, navigation or surveillance services shall ensure the availability, continuity, accuracy and integrity of its services.

CNSPCRA5.1
Para 2 -

A provider of communication, navigation or surveillance services shall confirm the quality level of the services it is providing and shall demonstrate that its equipment is regularly maintained and where required calibrated.

2. SAFETY OF SERVICES

A provider of communication, navigation or surveillance services shall comply with the requirements of Annex II, part 3 on the safety of services.

Refer Part B – Safety of services (Requirements identified ATSP are also applicable to CNSP)

WORKING METHODS AND OPERATING PROCEDURES



CNSPCRA5.3

A provider of communication, navigation or surveillance services shall be able to demonstrate that its working methods and operating procedures are compliant with the standards of Annex 10 on aeronautical telecommunications to the Convention on International Civil Aviation (Volume I: 5th edition, July 1996; Volume II: 6th edition, October 2001; Volume III: 1st edition, July 1995; Volume IV: 3rd edition, July 2002; Volume V: 2nd edition, July 2001 including all amendments up to no 79) as far as they are relevant for the provision of communication, navigation or surveillance services in the airspace concerned.

General requirements

ANSP - Technical & operational competence and capability (ANNEX I-1)

<p>Req. Number/Source ANSPCRA1.1</p>	<p>An air navigation service provider shall be able to provide services in a safe, efficient, continuous and sustainable manner consistent with any reasonable level of overall demand for a given airspace. To this end, it shall maintain adequate technical and operational capacity and expertise.</p>
<p>Analysis of Requirements</p>	<p>General requirement that is elaborated in the other requirements of the Annexes I & V.</p> <p>CNSPs, should inter-alia, have in place a technical infrastructure that meets relevant ECIP objectives (at least Pan-European and Multi-national where applicable).</p> <p>In addition the compliance with ESARR 3 would be an enabler of meeting the safety part of this requirement. An established Safety Management System can be derived by using the content and applying the procedures laid down in the “EUROCONTROL Generic Safety Management Manual”.</p>

Quoted documents:

- European Convergence and Implementation Plan (ECIP);
- “EUROCONTROL Generic Safety Management Manual”
Note: The EUROCONTROL Generic Safety Management Manual has been developed within the framework of the SASI (Support to ANSPs for SMS implementation) Project with the objective to support Air Navigation Service Providers for the implementation of their Safety Management Systems. To receive your copy, please access the www.eurocontrol.int/safety and complete the html form.

Contingency plans (ANNEX I - 8.2)

<p>Req. Number/Source ANSPCRA1.8.2</p>	<p>At the latest one year after certification, an air navigation service provider shall have in place contingency plans for all the services it provides in the case of events which result in significant degradation or interruption of its services.</p>
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Contingency plans for the various communication means should be referenced in the risk mitigation plans (refer below). Contingency plans should also be mentioned in the operational communication procedures.

Guidance for CNSP – Technical & Operational matters

Technical and operational competence and capability (ANNEX V 1)

<i>Req. Number/Source</i> CNSPCRA5.1 para 1	A provider of communication, navigation or surveillance services shall ensure the availability, continuity, accuracy and integrity of its services.
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Communication Services

Ground-Ground ATS Voice Communications	
<i>Analysis of Requirements</i>	<p>The Ground-Ground ATS Voice Communications shall meet the requirements, which are referred to ICAO Annex 10 VIII, Part II, Chapter 4 (Aeronautical Speech Circuits).</p> <p>Although, not legally mandatory , it is also advisable to consider the associated requirements for the availability, continuity, accuracy and integrity of the Ground-Ground ATS Voice Communications are stated in the various in place documents of ICAO SARPS and Docs, ITU and ETSI standards, EUROCONTROL Guidelines and EU rules.</p>
<i>Criteria</i>	<p>The Ground-Ground ATS Voice Communications shall meet the requirements, which are referred to:</p> <ul style="list-style-type: none"> • ICAO Annex 10 VIII, Part II, Chapter 4 (Aeronautical Speech Circuits); <p>Although not mandatory in the certification exercise, the following set of documentation can also be considered:</p> <ul style="list-style-type: none"> • ICAO Doc 9804: Manual on Air Traffic Services (ATS) Ground-Ground Voice Switching and Signalling (In particular Par. 2.1.6, 2.2 and 2.8); • EUROCONTROL: ATS Voice Network Implementation and Planning Guidelines- Edition 1.0 January 2005; • EUROCONTROL: Voice Communication System Procurement Guidelines – Edition 2.0 January 2005 (In particular Pars. 1.3., 1.4., 1.7., 1.11.); • EUROCONTROL: ATS R2 and ATS No5 signalling protocol specifications – Edition 2.0 June 2005; • EUROCONTROL: Inter-working between ATS-QSIG and ATS R2 signalling system - Edition 1.0 January 2005; • EUROCONTROL: Inter-working between ATS-QSIG and ATS Number 5 signalling systems – Edition 1.0.
<i>A way to comply</i>	<ul style="list-style-type: none"> • implement appropriate redundant VCS equipment and network configuration (pass-by and back-up facilities, hot stand-by links, etc).

	<ul style="list-style-type: none"> • availability's calculations should be made in order to assess and prove that associated figures required are met; • implement Safety and Functional Hazard Assessment (FHA) and System Safety Assessment (SSA) for VCS and telephone lines; • apply documented procedures on risk mitigations; • keep records on statistical data on the availability in practice. Calculations should be in line with the attachment F of Annex 10, Volume I. • set up Service Level Agreements with adjacent ATS Units, as well between the Technical CNS Supporting Unit and Operational Unit within the same ATS units.
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<p>Evidence</p>	<ul style="list-style-type: none"> • demonstration of the equipment and redundant network configuration; • documentation available (Configuration Diagrams, Availability Calculations, etc.); • theoretical calculations of the availability of various telecommunications means; • records on statistical data on the availability in practice; • evidence and investigation reports; • VCS Safety and Functional Hazard Assessment in place; • documented risks mitigation procedures in place; • bilateral Service Level Agreements with adjacent ATS units, as well internally within the same ATS Unit should be in place.
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<p>Air-Ground ATS Voice and Data Communications</p>	
<p>Analysis of Requirements</p>	<p>The highest possible availability, continuity, accuracy and integrity of the Air-Ground ATS Voice and Data Communications shall meet the requirements, which are referred to ICAO Annex 10 V III, Part II, Chapters 2 and 5 (Aeronautical Mobile Service).</p> <p>Although, not legally mandatory, it is also advisable to consider the associated requirements of ICAO SARPS, ITU and ETSI standards, EUROCONTROL Guidelines and EU rules. Also, common and best practice configurations can be met.</p>
<p>Criteria</p>	<p>The Air-Ground ATS Voice or Data Communications shall meet the requirements, which are referred to:</p> <ul style="list-style-type: none"> • ICAO Annex 10 V III, Part II, Chapters 2 and 5 (Aeronautical Mobile Service). <p>Although not mandatory in the certification exercise, the following other set of documentation can also be considered:</p> <ul style="list-style-type: none"> • ICAO Doc 9739: Comprehensive Aeronautical Telecommunication Network (ATN) Manual.; • ICAO Doc 9705: Manual of Technical Provisions for the

	<p>Aeronautical Telecommunication Network (ATN), 3rd Ed.;</p> <ul style="list-style-type: none"> • ICAO Doc 9705: Manual of Technical Provisions for the Aeronautical Telecommunication Network (ATN), 3rd Ed., Volume II Air-Ground Applications; • ICAO Doc 9816: Manual on VHF Digital Link (VDL) Mode 2, 1st Ed. 2004; • ICAO Doc 9776: Manual on VHF Digital Link (VDL) Mode 4, 1st Ed. 2004; • RTCA DO-224A VDL Mode 2 MASPS: Signal-In-Space Minimum Aviation System Performance Standards (MASPS) for Advanced VHF Digital Data Communications including compatibility with Digital Voice Techniques, Ed.1 • ETSI Standard ETSI ETS 300 676, Ed. 1: Radio Equipment and Systems (RES); Radio transmitters and receivers at aeronautical stations of the aeronautical mobile service operating in the VHF band (118 MHz -137 MHz) using amplitude modulation and 8,33 kHz channel spacing; Technical characteristics and methods of measurement; • ETSI Standard, ETSI ETS 300 676, V1.3.1.: Electromagnetic compatibility and Radio spectrum Matters (ERM);Ground-based VHF hand-held, mobile and fixed radio transmitters, receivers and transceivers for the VHF aeronautical mobile service using amplitude modulation; Technical characteristics and methods of measurement; • ETSI Standard, ETSI ETS 301 842-1, V1.1.1.: Electromagnetic compatibility and Radio spectrum Matters (ERM);Ground-based VHF Air-Ground Data Link (VDL) Mode 4 radio equipment, Technical characteristics and methods of measurement for ground based equipment, Parts 1, 2, 3, and 4; • ETSI Standard, ETSI EN 301 841-1 V1.2.1.: Electromagnetic compatibility and Radio spectrum Matters (ERM);VHF air-ground Digital Link (VDL) Mode 2; Technical characteristics and methods of measurement for ground-based equipment, Part 1: Physical layer and MAC sub-layer; • ETSI Standard, ETSI EN 301 841-2 V1.1.1.: Electromagnetic compatibility and Radio spectrum Matters (ERM);VHF air-ground Digital Link (VDL) Mode 2; Technical characteristics and methods of measurement for ground-based equipment; Part 2: Upper layers.
<p><i>A way to comply</i></p>	<ul style="list-style-type: none"> • implement appropriate redundant radio equipment and network configuration (back-up radios, hot stand-by links, etc.); • availability's calculations should be made in order to assess and prove that associated figures required have been met; • at least double full coverage (two sites) should be implemented for each channel (frequency) of the area of the responsibility; • develop and implement associated studies on frequency management and physical separation of the various radiation means (antennae) to avoid interference from

	<p>collocated emissions in sites.</p> <ul style="list-style-type: none"> • implement VHF/AM Radios Safety and Functional Hazard Assessment; • apply documented procedures on risk mitigations.
Evidence	<ul style="list-style-type: none"> • demonstration of the radio equipment and lines redundant configuration; • documentation available (Configuration Diagrams, Availability Calculations, etc.); • theoretical calculations of the means availability; • statistical data on the availability in practice; • evidence and investigation reports; • frequency management and radiation systems physical separation studies • VHF/AM Safety and Functional Hazard Assessment in place. • documented risks mitigation procedures in place.

Ground-Ground ATS Data Communications	
Analysis of Requirements	<p>The availability, continuity, accuracy and integrity of the Ground-Ground ATS Data Communications shall meet the requirements , which are referred to ICAO Annex 10 V II, Chapter 3, Pars: 3.2., 3.3. (General Procedures for the International Aeronautical Telecommunication Service).</p> <p>Although, not legally mandatory , it is also advisable to consider the associated requirements of ICAO SARPS, ITU and ETSI standards, EUROCONTROL Guidelines and EU rules.</p>
Criteria	<p>The Ground-Ground ATS Data Communications shall meet the requirements, which are referred to:</p> <ul style="list-style-type: none"> • ICAO Annex 10 V II, Chapter 3, Pars: 3.2., 3.3. (General Procedures for the International Aeronautical Telecommunication Service). <p>Although not mandatory in the certification exercise, the following other set of documentation can also be considered:</p> <ul style="list-style-type: none"> • LCIP Objectives; COM 04 (Migrate flight data exchange from X.25 to TCP/IP) and COM05 (Migrate from AFTN/CIDIN to AMHS for International Communications), ECIP 2006-10 Detail Objective Descriptions; • EUROCONTROL Guidelines for Implementation Support (EGIS), Part 5, Chapter 13 (Flight Message Transfer Protocol (FMTP), Ed. 1.0 22 April 2005; • ICAO Doc 9739: Comprehensive Aeronautical Telecommunication Network (ATN) Manual, Part III, Chapter 6, 7, Part IV;

	<ul style="list-style-type: none"> • ICAO Doc 9705: Manual of Technical Provisions for the Aeronautical Telecommunication Network (ATN), 3rd Ed., Volume III: Ground-Ground Applications;
<p><i>A way to comply</i></p>	<ul style="list-style-type: none"> • implement appropriate redundant radio equipment and network configuration (back-up radios, hot stand-by links, etc.); • availability calculations should be made in order to assess and prove that associated figures required have been met. • implement systems' Safety and Functional Hazard Assessment (SSA, FHA); • apply documented procedures on risk mitigations. • make clear plans and start implementation of the COM 04 and COM05 LCIP Objectives.
<p><i>Evidence</i></p>	<ul style="list-style-type: none"> • demonstration of the equipment and lines redundant configuration; • documentation available; • theoretical calculations of the means availability; • records on statistical data on the availability in practice; • evidence and investigation reports; • Systems Safety and Functional Hazard Assessment in place; • documented risks mitigation procedures in place; • show plans and actions being taken for the implementation of the COM 04 and COM05 LCIP Objectives.

Additional information:

The implementation of the LCIP COM objectives COM01, 02, 3, 04, 05, 06, 07, 08, 09, and ATC06 significantly contribute to the overall availability and reliability of the ATS voice and data communications.

The implementation of SAF 01, 02, 03, 04 and 05, and SRC 03, 04, 05.2 and 06 equally contribute to the required availability, continuity, accuracy and integrity of ATS communication services (Safety Management, Risk Analysis and Mitigations, System Safety Assessment, Functional Hazard Assessment, Licensing scheme for Engineers, SW Security matters)

Navigation

Navigation Services	
<p><i>Analysis of Requirements</i></p>	<p>The availability, continuity, accuracy and integrity of the Navigation Services shall meet the requirements, which are referred to in the ICAO Annexes.</p> <p>Although, not be legally speaking mandatory, it is also advised to consider the associated relevant requirements stated in the various in place documents of ICAO SARPS and Docs, EUROCAE/RTCA documents, EUROCONTROL Guidelines and EU rules.</p>
<p><i>Criteria</i></p>	<p>The Navigation Services and supporting systems shall meet the requirements, which are referred to in:</p> <ul style="list-style-type: none"> • ICAO Annex 10 Volume I, Radio Navigation Aids (all chapters) and Volume V, Aeronautical Radio Frequency Spectrum Utilization (chapter 3 and chapter 4, sections 4.2, 4.3, 4,4); • ICAO Annex 2, Rules of the Air; • ICAO Annex 11, Air Traffic Services; • ICAO Annex 15, Aeronautical Information Services; • ICAO Doc 4444, Rules of the Air and Air Traffic Services <p>Although not mandatory in the certification exercise, the following other set of documentation can also be considered:</p> <ul style="list-style-type: none"> • ICAO Doc 9613 - AN/937 "Manual on Required Navigation Performance • ICAO Document 9650 – SP COM/OPS/95 – Report on the Special Communications/Operations Divisional Meeting (1995) Agenda Item No.4- Appendix A – Description of Proposed Required Navigation Performance (RNP) Concept for Approach, Landing and Landing Operations ; • ICAO Doc 8168 “Procedures for Air Navigation Services -- Aircraft Operations (PANS-OPS)”; • ICAO EUR Doc 7754, European Region Air Navigation Plan; • ICAO EUR Doc 7030, Regional Supplementary Procedures; • ICAO EUR Doc 001, Guidance Material on the Application of Area Navigation (RNAV) in the EUR Region, Fifth Edition; • EUR EUR Doc 016 “European Guidance Material on Integrity Demonstration in Support of Certification of ILS and MLS Systems; • RTCA Do 236/EUROCAE ED-75, Minimum Aviation System Performance Standards (MASPS) for RNP Area Navigation; • JAA Administrative & Guidance Material, Section One: General Part 3: Temporary Guidance Leaflet No 2 (rev 1) – AMJ 20-X2 – JAA Guidance Material on Airworthiness Approval and Operational Criteria for the use of Navigation Systems in European Airspace Designated for Basic RNAV

	<p>Operations. (JAA TGL No.2);</p> <ul style="list-style-type: none"> • JAA Administrative & Guidance Material, Section One, General Part 3: Temporary Guidance Leaflet No. 10 – Airworthiness and Operational Approval for Precision RNAV Operations in Designated European Airspace; • EUROCAE ED-76 / RTCA DO-200A – Standards for Processing Aeronautical Data; • JAA Administrative & Guidance Material, Section One, General Part 3: Temporary Guidance Leaflet No. 9 – Recognition of EUROCAE Document ED 76 (RTCA DO 200A) – Standards for Processing Aeronautical Data; • EUROCONTROL RNAV Standard 003-93, edition 2.2; • EUROCONTROL Guidance Material for Flight Inspection of RNAV Procedures, edition 3, March 2005; • LCIP Objectives; NAV 03 (Implementation of Precision Area Navigation RNAV (P-RNAV) as an interim step towards Required Navigational Performance Area Navigation (RNP RNAV), NAV06 (Rationalisation of the Navigation Infrastructure), ECIP 2006-10 Detail Objective Descriptions.
<p><i>A way to comply</i></p>	<ul style="list-style-type: none"> • implement appropriate and redundant radio navigation equipment and data transmission configuration; • availability and accuracy calculations should be made in order to assess and prove that associated figures required have been met; • theoretical coverage diagrams and other theoretical performance analyses are carried out before the implementation; • flight inspection of navigation facilities and/or procedures is carried out before the implementation; • implement Safety and Functional Hazard Assessment (SSA, FHA); and System Safety Assessment (SSA); • apply documented procedures on risk mitigations; • keep records on statistical data on the availability in practice. Calculations should be in line with the Attachment F of Annex 10, Volume I; • show clear plans and actions being taken for the implementation of the NAV03 where applicable.
<p><i>Evidence</i></p>	<ul style="list-style-type: none"> • demonstration of the equipment and its built-in redundancy capabilities; • demonstration that all essential functions of the equipment are monitored and that Maintenance personnel are immediately informed of anomalies; • regular checks of the equipment are made in co-operation with Technical and/or Operational Staff and where necessary on request; • there is a Maintenance Organisation in place capable of supporting the Navigation equipment (if applicable);

	<ul style="list-style-type: none"> • records of Acceptance Tests (Factory, Site and Handover to ATC); • records that the equipment under test has met the requirements for detection, coverage, accuracy, resolution, availability etc. as described in points 4 and 5 of the Criteria of Eligibility above. Where necessary these records shall be supported by special Calibration Flights and Endurance Tests; • records of flight inspections, demonstrating that the equipment and/or procedures meet the requirements set out in points 2, 3, and 4; • full Documentation is available (Configuration Diagrams, Availability Calculations, Training Manuals, Maintenance Records (preventive and corrective) etc.); • theoretical calculations of the required availability were made using recommended methodologies or acceptable alternatives; • records on statistical data on the availability in practice (these shall include MTBF, MTBO, etc.);; • there is a Logistic Support Organisation in place (A full complement of Spares, a Spares replacement programme, Technical Support); • evidence and investigation reports; • Systems Safety and Functional Hazard Assessment in place; • Documented risks mitigation procedures in place; • plans and actions being taken for the implementation of the NAV 03 LCIP Objective (where applicable). • bilateral Service Level Agreements are in place between Technical CNS Supporting Unit(s) and Operational Unit(s) of the same ATS unit, as well as with Service Providers of adjacent States, to ensure that there is a redundant source of navigation data (duplicated coverage of the area of interest at least).
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Surveillance Services

Surveillance Services	
<p><i>Analysis of Requirements</i></p>	<p>The associated requirements for the availability, continuity, accuracy and integrity of Surveillance services shall meet the requirements, which are referred to in the ICAO Annexes.</p> <p>Although, not legally mandatory, it is also advisable to consider the associated relevant requirements distributed and stated in the various in place documents of ICAO SARPS and Docs, ITU and ETSI standards, EUROCONTROL Guidelines and EU rules.</p>
<p><i>Criteria</i></p>	<p>The Surveillance systems should meet the requirements, which are referred to in:</p> <ul style="list-style-type: none"> • ICAO Annex 10 Volume IV, Surveillance Radar and Collision Avoidance Systems (all Chapters). <p>Although not mandatory in the certification exercise, the following other set of documentation can also be considered:</p> <ul style="list-style-type: none"> • LCIP Objectives SUR01 (Implement dual Secondary Surveillance Radar (SSR) Coverage, SUR02 (Implement Mode S elementary surveillance (in applicable areas)), SUR03 (implement radar data processing and distribution systems), SUR04 (Implement Mode-S enhanced surveillance (in applicable areas); • ICAO Doc 8071, Volume III (Testing of Surveillance Radar Systems); • EUROCONTROL Standard Document for Radar Surveillance in En-Route Airspace and Major Terminal Areas (Ref SUR.ET1.1000-STD-01-01); • EUROCONTROL Document Radar Performance Analysis (Ref. SUR-ET1.ST03.1000-01-01) Dated June 1997; • ICAO Document 7192, Training Manual : ATS Electronic Personnel (ANTSEP), Preliminary Edition, 2004; • ICAO Document 9735 Safety Oversight Manual.
<p><i>A way to comply</i></p>	<ul style="list-style-type: none"> • implement appropriate data Surveillance equipment and data transmission configuration (Bypass and back-up facilities, hot stand-by systems, etc.). • theoretical coverage diagrams and other theoretical performance analyses are carried out before the implementation; • availability calculations shall be made in order to assess and prove that associated figures required have been met; • implement Safety and Functional Hazard Assessment (FHA) and System Safety Assessment (SSA); • apply documented procedures on risk mitigations; • keep records on statistical data on the availability in practice. Calculations should be in line with the attachment F of Annex 10, Volume I

<p>Evidence</p>	<ul style="list-style-type: none"> • demonstration of the equipment and its built-in redundancy capabilities; • demonstration that all vital functions of the equipment are constantly monitored and that Maintenance personnel are immediately informed of anomalies; • regular checks of the equipment are made in co-operation with Operational Staff and where necessary on request; • there is a Maintenance Organisation in place capable of supporting the Surveillance equipment; • records of Acceptance Tests (Factory, Site and Handover to ATC); • records that the equipment under test has met the requirements for detection, coverage, accuracy, resolution, availability etc. as described in points 4 and 5 of the Criteria of Eligibility above. Where necessary these records shall be supported by special Calibration Flights and Endurance Tests; • full Documentation is available (Configuration Diagrams, Availability Calculations, Training Manuals, Maintenance Records (preventive and corrective) etc.); • theoretical calculations of the required availability were made using as a minimum the Buzacott methodology prior to the implementation of the equipment; • records on statistical data on the availability in practice (this shall include MTBF, MTTR, MDT etc.); • there is a Logistic Support Organisation in place (A full complement of Spares, a Spares replacement programme, Technical Support; • evidence and investigation reports; • Safety and Functional Hazard Assessment measures in place;. • documented risks mitigation procedures in place;. • bilateral Service Level Agreements are in place with adjacent ATS units, as well internally within the same ATS Unit to ensure that there is a redundant source of Surveillance data (duplicated coverage of the area of interest at least).
<p>Additional information</p>	<p>Point 3 of Evidence assumes that the techniques described in the document EUROCONTROL Standard Document for Radar Surveillance in En-Route Airspace and Major Terminal Areas (Ref SUR.ET1.1000-STD-01-01)": are used (SASS-C and SASS-S equipment or similar equipment capable of verifying the performance, with opportunity traffic).</p> <p>The successful implementation (i.e. "Completed) of the LCIP SUR objectives SUR 01, 02, 03, and 04, together with SAF 01, 02, 03, 04 and 05, ATC06 and SRC 03, 04, 05.1 imply automatically that the overall availability and reliability of the Surveillance System meets the requirements of the guidance material.</p>

<p>Req. Number/Source</p> <p>CNSPCRA5.1 para 2</p>	<p>A provider of communication, navigation or surveillance services shall confirm the quality level of the services it is providing and shall demonstrate that its equipment is regularly maintained and where required calibrated.</p>
<p>Analysis of Requirements</p>	<p>The Quality of Services is related to the parameter figures for all the ATS communication, navigation and surveillance equipment, which can guarantee the achievement of an accepted level of performance.</p> <p>Those parameters are referred to the various documents in place, ICAO SARPS, manuals, ETSI standards and ITU standards, EUROCONTROL guidelines and EU Rules. The associated documentation is mentioned in the CNSPCRA5.1 para. 1. above (Criteria of Eligibility) for each type of communication.</p> <p>The ANSP should have all means to be able to identify, validate, confirm, maintain and demonstrate the aforesaid figures.</p>
<p>Criteria</p>	<p>Criteria to be checked could be the conformance of the ATS Communications measurable parameter figures with ones provided in the associated documentation mentioned in the analysis of the requirement.</p>
<p>A way to comply</p>	<ul style="list-style-type: none"> • define figures of the QoS parameters of the various ATS communication, navigation or surveillance equipment and especially to those specified in the ICAO SARPS, ITU Recommendations, ETSI Standards and EUROCONTROL associated Guidelines; • set up documented procedures concerning measurements of the various equipment QoS parameters defined; • develop and implement documented procedures for regular preventive and corrective maintenance of the various equipment; • develop and implement documented procedures for the regular calibration of tools and test equipment used for the corrective and preventive maintenance of the equipment; • develop an Operations Manual for the CNS Unit and associated SW databases and tools for day to day work; • there is a Logistic Support Organisation in place (a full complement of Spares, a Spares replacement programme, Technical Support contracts, a Configuration/Change and Problem Investigation/Management Management organisation exists.

<p>Evidence</p>	<ul style="list-style-type: none"> • documentation available (Operations Manual, which essential performance figures of the most important technical parameters of the equipment , Preventive and Corrective Maintenance Procedures in place, Configuration/Change and Problem Management, etc.); • demonstration in professional way of the equipment and where applicable, network configuration and technical characteristics (Diagrams, tables, etc.); • evidence of investigation/anomaly reports; • associate Bilateral Service Level Agreements with adjacent ATS units, as well internally within the same ATS Unit should be in place.
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Working methods and operating procedures (ANNEX V- 3)

<p>Req. Number/Source CNSPCRA5.3</p>	<p>A provider of communication, navigation or surveillance services shall be able to demonstrate that its working methods and operating procedures are compliant with the standards of Annex 10 on aeronautical telecommunications to the Convention on International Civil Aviation (Volume I: 5th edition, July 1996; Volume II: 6th edition, October 2001; Volume III: 1st edition, July 1995; Volume IV: 3rd edition, July 2002; Volume V: 2nd edition, July 2001 including all amendments up to n° 79) as far as they are relevant for the provision of communication, navigation or surveillance services in the airspace concerned.</p>
<p>Analysis of Requirements</p>	<p>This requirement concerns the competence of the ANSP to professionally demonstrate that the procedures and working methods, from operational and technical point of view, in place are sufficient to meet and in some areas to exceed and maintain all the related standards of Annex 10.</p>
<p>Criteria</p>	<p>This is to prove the conformance of the specified ATS System operating procedures and day to day working methodology with ones provided in the associated ICAO documentation of Annex 10 or with a difference from the Standard duly notified to ICAO by the State concerned and which are then published in a supplement to the ICAO Annex and in the State’s AIP.</p>
<p>A way to comply</p>	<ul style="list-style-type: none"> • develop documentation for detailed procedures is place in line with the Standards of ICAO (Operation Manuals, Processes and Procedures); • implement associated procedures how to assess the compliance of working methods with ICAO Standards in the framework of a Safety Management System; • set up internal and external audits in the framework of a Quality Management Policy in the ANSP.

Evidence	<ul style="list-style-type: none"> • Documentation available (Operation Manuals, Preventive and Corrective Maintenance Procedures in place, Configuration/Change and Problem Management, etc.); • Evidence of problem/ investigation reports; • Bilateral Service Level Agreements with adjacent ATS units, as well internally within the same ATS Unit should be in place; • Documented Functional Hazard Assessment (FHA) and System Safety Assessment (SSA) for all the ATS Communications equipment and means.
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Reference to special editions of ICAO Annexes in common requirements for the provision of air navigation services

In ANNEX V to the common requirements, under “Working methods and operating procedures”, there are references to special editions of the relevant ICAO Annexes.

As all ICAO Annexes are regularly replaced by a new edition at least once every three year, NSA and ATSP are highly advised to consider the applicable edition of the respective ICAO Annex, especially during the on going compliance (Article 7 of CR).

Definitions

Definitions are provided in the Glossary document.