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Abstract

The objective of this document is to guide national supervisory authorities in the execution of the supervision of air navigation service providers' compliance with the provisions of Regulation (EC) No 552/2004 of the European Parliament and the Council of 10 March 2004 on the interoperability of the European Air Traffic Management network (the interoperability Regultion), as amended by Regulation (EC) No 1070/2009 and the implementing rules adopted under the interoperability Regulation.

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1. Introduction

1.1. Objective and purpose of this document

The objective of this document (referred to hereinafter as the NSA IOP Guidelines or Guidelines) is to guide national supervisory authorities (NSAs) in the execution of the supervision of ANSPs' compliance with the provisions of Regulation (EC) No 552/2004 [1] as amended by Regulation (EC) No 1070/2009 [2] (referred to hereinafter as the IOP Regulation) and the implementing rules adopted under the IOP Regulation [3-11] (referred to hereinafter as the IOP IRs).

These Guidelines have been developed by the Interoperability Working Group (IOP WG) of the NSA Coordination Platform in accordance with its terms of reference (objectives and tasks of the Platform) under the sponsorship of the European Commission with support from EUROCONTROL. The document is based on the single European sky (SES) regulatory requirements and national practices applied by NSAs.

The "EUROCONTROL Guidelines on conformity assessment for the interoperability Regulation of the single European sky" Ed. 3.0 (20/02/2012) (CA Guidelines) [12] are used as a baseline for these NSA guidelines. For that purpose, terms used in the CA Guidelines have the same meaning as in this document.

This document is strictly advisory in nature and does not carry or imply any obligations to be followed. Any application by NSAs is voluntary.

1.2. Scope of the document

This document contains guidance for the NSAs on the process of supervision of compliance with the IOP Regulation and its IRs. It covers the mandatory requirements laid down in the legislation combined with a recommended process.

This document is split into 5 sections, supported by annexes.

Section 2 provides an explanation of terms that are used in this document but are not defined in the legislation.

Section 3 describes the principles of the IOP supervision based on the mandatory requirements specified in the SES legislation[1] [see Annex B] explaining the key requirements and responsibilities in relation to IOP supervision.

Section 4 contains the steps of a recommended process that NSAs may follow to ensure the required supervision of the IOP Regulation and IOP IRs. The process is developed based on the regulatory requirements that have to be met and the practices adopted by the NSAs to ensure its effectiveness. To ensure completeness the recommended process involves tasks and responsibilities not only for NSAs but also for Member States, ANSPs, manufacturers, notified bodies and the European Commission.

Section 5 describes cases studies that NSAs may encounter in the process of supervision and a recommended approach for handling them.

Acronyms are listed in Annex A, a list of reference documents is provided in Annex B, Annex C contains a table of the IOP IRs adopted with relevant dates of applicability, Annex D lists the WEB resources referred to herein, Annex E is the checklist for interoperability documentation assessment, and Annex F contains templates and checklists used by NSAs.

[1] The four basic SES regulations [see Annex B] and adopted implementing rules.

2. Definition and use of terms

The terms defined in the applicable SES legislation have the same meaning in these Guidelines.

In addition this Section contains an explanation of terms that are not defined in the applicable legislation but are widely used in the process for achieving compliance with the IOP Regulation and the IOP IRs. The explanation given in these Guidelines is valid for the purpose of the Guidelines and cannot and should not be considered as unique or binding.

When used in these Guidelines the following terms mean:

- **Certificate of Conformity:** a certificate countersigned by a notified body involved in conformity assessment tasks stating that a system complies with the ERs and/or IRs.
- "**Compliance Matrix**": a document established by ANSPs providing the rationale showing that the system has been designed to ensure interoperability in its technical and operational environment;
- "**Conformity Assessment**": a process for the demonstration of compliance with the essential requirements (ERs) of the IOP Regulation and relevant IOP IRs[2];
- "**EATMN representation**": the mapping of the real-world ANSP systems in terms of EATMN constituents[3] and EATMN systems[4] for which the ANSPs apply conformity assessment procedures;
- **"Examination Certificate"**: a certificate issued by a notified body involved in a procedure relating to Conformity or Suitability for Use of a constituent;
- "**Interoperability documentation**": *inter alia* the EC Declaration of Verification (DoV) of systems (see Annex IV, Item 1 of the IOP Regulation), the technical file including the EC Declaration of Conformity or Suitability for Use (See Annex IV, Item 3 of the IOP Regulation) of constituents and any additional information required by the NSA (operational approvals, training evidence, maintenance manuals, etc.)
- "**Means of Compliance (MoC) baseline**": the set of requirements derived from Community Specifications, other standards and proprietary technical specifications considered to be a means of compliance with the regulatory baseline;
- **Placing on the market:** the first time a product is made available on the Community (now Union) market.
- **Procedure:** as used in the context of the interoperability Regulation, means a standard method for either the technical or the operational use of systems, in the context of agreed and validated concepts of operation requiring uniform implementation throughout the EATMN.

[2] EATMN systems and constituents may also need to demonstrate their compliance with other EU legislation and follow specific conformity assessment procedures defined therein (e.g. Regulation (EC) 216/2008, R&TTE Directive). These procedures are outside the scope of conformity assessment for the IOP Regulation and IOP IRs and are not considered in these Guidelines.

[3] Constituents - see Article 2 (19) of Regulation (EC) 549/2004 as amended by Regulation (EC) 1070/2009

[4] System – see Article 2 (39) of Regulation (EC) 549/2004 as amended by Regulation (EC) 1070/2009 and Annex I to the IOP Regulation

- "**Regulatory baseline**": the mandatory provisions specified in relevant EU legislation – requirements of the IOP Regulation (essential requirements) and Implementing Rules, national rules and regulations if applicable.

3. Principles of interoperability supervision

3.1. Regulatory framework

3.1.1. Introduction

This section refers to the legal bases for IOP supervision and the explicit requirements assigned to NSAs in the IOP Regulation [1]. For completeness, it also refers to the obligations placed on ANSPs, manufacturers, Member States and the European Commission. A more detailed process for supervision of the IOP Regulation and IRs [3-11] together with recommended practices is described in Section 4.

3.1.2. IOP Regulation

The objective of the IOP Regulation [1] as set out in Article 1 "*is to achieve interoperability between the different systems, constituents and associated procedures of the EATMN, taking due account of relevant international rules".* It also *"aims at ensuring the coordinated and rapid introduction of new agreed and validated concepts of operations or technology in air traffic management*."

To achieve that objective, the Regulation states the essential requirements (ERs) in Annex II and the legal basis for adoption of Implementing Rules and Community Specifications.

Articles 5 and 6 of the IOP Regulation [1] place an obligation on manufacturers and ANSPs to verify and declare compliance of constituents and systems of the EATMN with the ERs and relevant IRs [3-11]. Article 6 also obliges the ANSPs to verify conformity of their systems and confirm this by establishing an EC declaration of verification, confirming compliance, and to submit it to the NSA accompanied by a Technical File. The NSA may require any additional information necessary to supervise such compliance.

3.1.3. IOP Implementing Rules

The IOP IRs [3-11] are adopted whenever necessary to achieve the objective of the IOP Regulation [1]. In particular they determine or complement the IOP Regulation ERs. They also specify procedures for conformity assessment of systems and constituents and the conditions of implementation, including where appropriate the date by which all stakeholders are required to comply with the IRs.

With regard to supervision, the IRs [3-11] do not contain specific requirements for defining its content and what has to be done by NSAs to confirm compliance with the IOP Regulation [1] and IRs [3-11]. This is due to that fact that Article 3 of the IOP Regulation [1] on Implementing Rules for Interoperability, which defines the powers delegated to the European Commission to adopt these rules, does not provide the legal basis for defining supervisory tasks.

For that reason the tasks to be performed to ensure compliance with the IOP IRs [3-11] are the responsibility of the Member States. Tasks are also assigned to Member States in cases where the obligation deriving from the IR falls not on ANSPs or operators but on other stakeholders – for example, military providers or organisations. For the implementation of these legal obligations, States need to adopt national arrangements to ensure compliance. Such arrangements may include assignment of tasks to NSAs where the compliance of the ANSPs is concerned [see Section 4].

3.1.4. Community Specifications

Community Specifications (CSs) are defined in Article 4 of the IOP Regulation [1] as European standards of the European standardisation bodies CEN, CENELEC and ETSI in cooperation with EUROCAE or EUROCONTROL Specifications. Community Specifications are voluntary means of compliance and may be applied for systems and associated procedures or for constituents. Both ANSPs and manufacturers may use Community Specifications.

Compliance with the ER and/or IRs [3-11] for interoperability is presumed for systems, together with the associated procedures, or constituents that meet the relevant Community Specifications and whose reference numbers have been published in the OJ of the EU.[5]

3.2. Supervision of compliance

3.2.1. NSA role

NSAs are established under Article 4 of the Framework Regulation [13] to supervise compliance of the ANS providers with the SES legislation, including interoperability. The NSAs are supposed to perform the tasks assigned to them in all of the legislation governing the single European Sky (SES).

However, the explicit requirements set out in the IOP Regulation [1] on the supervision to be exercised by the NSAs are limited and not described in detail. The IOP Regulation [1] in Article 6 introduces the concept, but does not contain any specific requirements on the conduct of this supervision. However, for the purposes of these Guidelines it is assumed that the IOP supervision is part of the general supervision process adopted by NSAs and that for each task assigned to the ANSPs, the NSAs (or Member States, as the case often may be) will have a mirror obligation to supervise. This provides the rationale that some of the tasks of the NSAs described below are derived from the obligations of the ANSPs.

The obligations of the NSAs under the IOP Regulation [1] should be considered in the wider context of SES implementation (e.g. safety oversight of changes as detailed in the safety oversight Regulation [14]).

3.2.2. Verification of constituents and IOP documentation

Manufacturers (or their authorised representatives established in the Community) conduct the necessary verification of constituents and issue a Declaration of Conformity (DoC) or Suitability for Use (DSU) for constituents [Article 5 and Annex III to the IOP Regulation [1]]. Constituents have to be compliant with the applicable EU legislation before being placed on the market or put into service (such cases can include constituents developed in-house by the ANSPs). Manufacturers issue DoCs where a Community Specification is used or a DSU where there is no Community Specification or it is not used.

The IOP Regulation [1] does not specify the method and the procedure for achieving the verification of compliance but it recommends the use of modules of Council Decision 93/465/EEC now repealed by [18]. The manufacturer is free to choose which module is applied unless otherwise specified in an IR. To date no such requirement has been prescribed by IOP IRs. [See Section 5.5.3 of the CA Guidelines [2]]

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http://eurlex.europa.eu/Result.do?arg0=552%2F2004+&arg1=Article+4&arg2=&titre=titre&chlang=en&RechType=RECH_mot&Submit=Search

3.2.3. Verification of systems and IOP documentation

ANSPs verify the systems to make sure that they are compliant with the regulatory baseline and issue an EC DoV, accompanied by a Technical File (TF) [see Article 6 and Annex IV to the IOP Regulation [1]]. ANSPs ensure that evidence of compliance, including DoCs and DSUs, is contained in the TF. ANSPs verify that the manufacturer's declarations give the assurance required by the IOP Regulation, i.e. either conformity or suitability for use for ATM purposes. ANSPs also verify that these constituents are fit for the purpose of the particular system that is being brought into service.

3.2.4. Associated procedures

The scope of EATMN includes systems, constituents and associated procedures. The associated procedures are not explicitly mentioned in Chapter III of the IOP Regulation on Verification of Compliance [1]; nevertheless, they have to comply with the applicable interoperability legislation (see Articles 2 and 3 of the IOP Regulation and relevant articles in the IOP IRs – e.g. Article 5 of the COTR Regulation [3] and Article 4 of the AGVCS Regulation [6].

ANSPs need to demonstrate that the procedures meet the ERs[6] of the IOP Regulation [1] and the relevant IR requirements. For the exercising of this supervision, the NSAs may require any additional information such as manuals, training syllabuses, contingency plans, etc.

3.2.5. ANSPs' capability to conduct verification tasks

The IOP Regulation [1] does not require that NSAs supervise the ANSPs as regards their capability to conduct a verification of systems and to demonstrate their compliance with the ERs and IRs.

Each IOP IR [3-11], however, obliges Member States to ensure compliance with the requirements set out therein. One of the requirements is for the ANSPs to demonstrate that they have fulfilled a list of conditions allowing them to conduct the verification of systems without the involvement of a notified body before starting the verification exercise.[7] The list of conditions is normally to be found in an Annex to each IR, for example Annex III to the FMTP Regulation [5]. These conditions cover reporting methods, the professional integrity of personnel, training, impartiality, etc. Member States need to arrange and assign locally the supervision of the ANSPs' compliance with these conditions.

3.2.6. Notified bodies

ANSPs which cannot demonstrate that they meet the conditions must use notified bodies for the verification. Manufacturers may also use the services of notified bodies. Notified bodies and their use for verification tasks are described in Article 8 of and Annex V to the IOP Regulation [1] as well as in IRs, where applicable. Where ANSPs use notified bodies, this has to be reflected in the EC Declaration of Verification (EC DoV) and the attached Technical File (TF) [See Annex IV to the IOP Regulation]. The notified bodies must issue an examination certificate for the tasks they have performed for the manufacturers and a certificate of conformity if they participate in the verification of systems for ANSPs. The examination certificate is part of the DoC or DSU issued for constituents, while for verification of systems the certificate is part of

[6] See Annexes E and F to the Conformity Assessment Guidelines for details on ERs.
[7] Such text exists in all but one of the IOP IRs – Regulation (EC) 1033/2006 as amended.

the TF accompanying the DoVs; [Annex III, Section 3 and Annex IV, Sections 2 and 3 of the IOP Regulation].

The IOP Regulation [1] assigns the rights and obligations regarding the notification and monitoring of notified bodies to the Member States; this task may, however, be delegated to the NSAs. Member States may also decide to appoint qualified entities, as defined by the service provision Regulation [15], to act as notified bodies (Article 8 (4) of the IOP Regulation).

The criteria to be fulfilled by notified bodies regarding notification are identified in Annex V to the IOP Regulation [1].

3.2.7. Submission of EC DoV and TF to the NSA

Article 6.2 of the IOP Regulation [1] obliges the ANSPs to establish an EC declaration of verification, confirming compliance of the system with the applicable regulatory baseline.

This DoV, together with a TF, is submitted to the NSA/NSAs before a system is put into service after the initial installation or upgrade. The TF contains all the necessary documents relating to the characteristics of the system, including conditions for and limits on use and documents demonstrating conformity or suitability for use of constituents where appropriate. [see Annex IV to IOP Regulation [1] and Sections 5 and 6 of CA Guidelines [2]].

3.2.8. NSA verification of IOP documentation

To fulfil its responsibility to supervise compliance, the NSA assesses the interoperability documentation for compliance with the regulatory baseline set out in Annexes II - IV to the IOP Regulation [1] and the applicable requirements from the IOP IRs [3-11]. This is the core task of the NSA in the supervision of compliance with the IOP Regulation [1] and IRs [3-11].

As part of the verification of interoperability documentation, the NSAs may also request:

- the ANSPs to provide any additional information required;
- the manufacturers (primarily through the ANSP) to provide information in addition to the EC Declaration of Conformity or Suitability for Use and accompanying documents;
- additional supporting information from other NSAs.

Above and beyond the IOP Regulation [1], the NSAs or other national authorities may also need to ensure supervision of compliance with other complementary EU legislation which is outside the scope of these Guidelines. [see Section 2.5.1 of CA Guidelines [2]. This is also set out in paragraph 4 of Article 6 of the IOP Regulation [1].

After the systems are put into service the NSAs need to continuously supervise whether the ANSPs are ensuring the compliance of the systems, constituents and associated procedures with the relevant IOP IRs throughout their lifecycle as required by Article 3 of the IOP Regulation [1].

3.3. Safeguards

The EATMN, its systems, constituents and associated procedures must meet the IOP ERs and comply with the relevant IOP IRs [1] throughout their lifecycles.

3.3.1. Tasks of NSAs

Article 7 of the IOP Regulation [1] requires that where NSAs ascertain that a constituent or a system does not comply with the ERs and/or relevant IRs, it must, with due regard to the need to ensure safety and continuity of operations, take all necessary measures to restrict the area of application of the constituents or the system or prohibit its use by the entities under the responsibility of the NSA.

Article 7, paragraph 1, states that NSAs may restrict or prohibit the use of **a constituent** accompanied by the EC DoC (when integrated into an EATMN system) or DSU **or a system** accompanied by the EC DoV.

The measures taken by the NSA need to be communicated immediately to the Member State. It is advisable for a specific procedure, communication channels, focal points and templates for notification to be established by the NSA and agreed with the Member State.

3.3.2. Tasks of Member States

When notified by the NSA of the safeguard measures taken, the Member State must in turn immediately inform the European Commission of the measures taken in accordance with Article 7 (2) of the IOP Regulation [1].

Further on in the process (after the Commission gets involved and if it determines that the measures are not justified), Member States will need to ensure that the safeguard measures are withdrawn (Article 7(4) IOP Regulation [1]). However, if the measures are justified, Member States have to take appropriate measures against the originator of the EC DoC, DSU or DoV and inform the Commission and other Member States - Article 7 (5) of the IOP Regulation [1].

3.3.3. Tasks of the European Commission

As soon as possible after being notified, the Commission must consult the parties concerned – including the NSA, ANSP, manufacturers and notified bodies, if relevant. After this consultation, the Commission will inform the Member State of its findings and its opinion as to whether the NSA's safeguard measures are justified.

Where the Commission establishes that the safeguard measures are not justified, it must request the Member State concerned to ensure that the measures are withdrawn without delay. It must also immediately inform the manufacturer concerned or authorised representative established in the Community (Union).

Where the Commission establishes that non-compliance is due to incorrect application of the IOP IRs [3-11] and/or CSs, the Member States concerned must take the appropriate measures against the originator of the EC DoC, DSU or DoV and must inform the Commission and the other Member States.

Where the Commission establishes that non-compliance is due to shortcomings in the CSs, the procedures in Article 4 (6) concerning shortcomings in published European standards or (7) for shortcomings in published EUROCONTROL specifications of the IOP Regulation [1] will apply, which may include partial or total withdrawal of amendments.

3.4. Interoperability and safety supervision

There is an explicit relationship between interoperability and safety supervision which stems from the requirements set out in Article 10(2)(c) of the safety oversight Regulation [14] for NSAs to review the safety arguments associated with a new functional system or a change to a functional system and from the fact that safety is one of the essential requirements of the IOP Regulation, Annex II, Parts A and B [1].

Organisations (including ANSPs)[8] must notify NSAs of all planned safety-related changes. The NSAs must review all changes that have severity class 1 or 2 or if the change requires the introduction of new aviation standards. In addition NSAs may decide to review other selected changes. When reviewing the changes the NSAs must consider the safety objectives, safety requirements and other safety-specific conditions related to the changes identified in DoVs, DoCs and DSUs. The putting into service of the safety-related changes under review must be accepted by the NSA.

The link between safety oversight and interoperability oversight is reflected in all IOP IRs [3-11], whereby it is required that before introducing any changes to the relevant systems ANSPs must conduct a safety assessment, including hazard identification, risk assessment and mitigation. (see for example Article 6 of the COTR Regulation [3]). The obligations of the ATSPs and CNSPs to conduct risk assessments and mitigation with regard to changes are laid down in the Common Requirements Regulation [16][9]. Some IOP IRs contain additional safety-related requirements (ACID Regulation, Article 5, Annex IV [10]) which must be taken into account during the abovementioned assessments.

In practice, it is common for planned changes to be notified to the NSAs before the interoperability documentation is submitted.

IOP IRs [11] may require a safety assessment of existing systems even if they are not subject to changes.[10] .

In some cases the changes may not lead to the issuing or updating of a DoV as the operational characteristics of the system have not been changed. (see Section 8 of the CA Guidelines, Conformity Assessment Maintenance).

In relation to IOP supervision, the NSA has the right to request information additional to the DoV and the TF which may include evidence of compliance of the associated procedure, as well as information related to the training of the technical and operational personnel who will be operating and maintaining the system.

[8] Article 2.5 of Commission Implementing Regulation (EU) No 1034/2011.
[9] See Annex II, Item 3.2, Safety Requirements for risk assessment and mitigation with regard to changes (ATC providers) and Annex V, Item 2, Safety of Services.
[10] Commission Implementing Regulation (EU) No 1207/2011, Article 9.1 (SPI IR) requires Member States to ensure that by 5 February 2015 a safety assessment is conducted for all existing systems referred to in Article 2(1), items b, c and d.

4. Interoperability supervision – a recommended process

4.1. Introduction

Section 3 above describes the legally binding obligations of the NSAs with regard to interoperability supervision. The section below contains the obligations described above complemented by practices applied by NSAs or recommendations for practices discussed and developed in the NCP WG on Interoperability.

These recommended practices are not mandatory but should be seen as a potential means for NSAs to guarantee that the process of supervision will be thorough but not overwhelming for both the NSAs and other concerned parties.

4.2. Allocation of responsibilities

As described above, the IOP Regulation [1] contains a very limited number of requirements assigned directly to NSAs, and the IOP IRs [3-11] do not contain tasks assigned directly to NSAs. However, implementation of the IOP Regulation [1] and its IRs [3] is a responsibility of the Member States, which should arrange locally allocation of responsibilities.

As one potential means of ensuring timely and effective implementation, these Guidelines recommend that a practice is adopted at national level to assess and allocate the obligations deriving from the IOP Regulation [1] and IOP IRs [3-11] among States, CAAs, NSAs, ANSPs, airspace users and other organisations, as applicable.

Such practice would ensure that all stakeholders are made aware of their respective obligations in detail, and where the legal text assigns obligations explicitly to Member States, those stakeholders may define specific national arrangements.

This practice should be made part of the governing documents of the stakeholders so that it is formalised and relates to duties, triggers and time limitations.

4.3. Cooperation between NSAs and ANSPs

NSAs and ANSPs should cooperate to establish transparent and sound processes aimed at achieving compliance with the IOP Regulation [1] and its IRs [3-11]. Both parties need to have in place a process for conducting their tasks and these processes need to be aligned to a great extent taking into account the various roles and responsibilities.

These processes should include the mandatory actions but should also support these actions with agreed timelines, specific templates, means of communication, special cases, etc.

After the tasks and responsibilities for the implementation of the IOP Regulation [1] and its IRs [3-11] have been agreed and allocated at national level, the NSAs and ANSPs should coordinate to develop processes, addressing for example:

- the monitoring of the evolution of applicable legislation for NSAs and ANSPs;
- the definition of systems subject to verification in accordance with Annex I to the IOP Regulation [1] (EATMN representation)
- the verification of ANSP compliance with the conditions (specified in the IRs [3-11]), which must be demonstrated in order to allow the ANSP(s) to conduct a CA/verification of systems;
- the assessment of the interoperability documentation provided by the ANSP;

- actions in the event of conformity or non-conformity;
- the use of 'templates' (e.g. for the declarations, technical files, IR compliance) and compliance matrices;
- on-site audits and inspections.

It is also recommended that ANSPs consult the NSAs on the ANSPs' processes and procedures relating to ensuring and achieving regulatory compliance. NSAs may also consider producing appropriate information and guidance material on the IOP Regulation [1] and IRs [3-11].

Such active consultation will be one of the prerequisites for building confidence and trust between the NSAs and ANSPs, and will facilitate the supervision of compliance.

4.3.1. Role of manufacturers

As part of the processes detailed, the NSAs have to be aware of the obligations of the manufacturers under the IOP Regulation [1] and IRs [3-11]. The role of the manufacturer (or authorised representative established in the Community (now the European Union)) is to ensure and declare, by means of a DoC or DSU, that it has applied the provisions laid down in the IOP Regulation ERs and relevant IOP IRs.

The manufacturers must be able to support the declarations they have issued with evidence, and ANSPs may request supporting documentation if necessary.

Usually the NSAs do not have a relationship with the manufacturers. The relationship is principally through the ANSP, as a constituent can only be integrated into the EATMN by an ANSP. If however the NSA decides that it needs additional information to supervise compliance, it may also request additional information directly from manufacturers.

The NSAs may (via the ANSPs) advise the manufacturers to prepare DoCs/DSUs which are non-site specific to facilitate a common approach to compliance for the manufacturer's product where appropriate.

4.3.2. Notified bodies

Where an NSA or the ANSP has determined that the ANSP cannot conduct conformity assessment activities, or the involvement of a notified body has been made mandatory in an IR (none have so far), the ANSP must subcontract the verification to a notified body. Manufacturers may also use notified bodies for their activities.

NSAs should specifically check whether the appropriate certificates issued by the notified bodies are provided as part of their assessment of the interoperability documentation.

An overview of notified bodies is available under the following link[11].

4.4. ANSPs' capability to conduct verification activities

ANSPs must demonstrate that they fulfil the specific conditions, detailed in the IR annexes[12], for conducting verifications of systems without the involvement of a notified body. Member States may arrange for their NSA to take responsibility for the supervision of ANSPs' verifications of systems under the IRs.

[11] http://ec.europa.eu/enterprise/newapproach/nando/index.cfm?fuseaction=directive.notifiedbody&dir_id=128961&type_dir=NO CPD&pro_id=99999&prc_id=99999&ann_id=99999&prc_anx=99999

[12] See for example Annex V to Regulation (EC) No 1032/2006.

NSAs may consider linking the oversight of compliance with the common requirements with the process for verifying that ANSPs are capable of conducting conformity assessments. Alternatively, NSAs may opt to establish separate procedures for the oversight of the common requirements and IOP requirements.

The specific conditions cover *inter alia*:

- reporting methods;
- professional integrity and technical competence of personnel;
- access to relevant equipment;
- sound technical and vocational training;
- satisfactory knowledge of the requirements of the verification;
- impartiality.

Since all processes of the ANSPs, including reporting and management of human resources, are subject to supervision by the NSAs under the SES legislation, supervision of fulfilment of the conditions of the IOP IRs [3-11] may be covered in the supervision of ongoing compliance or safety oversight, and confirmed and/or declared by the ANSPs with the submission of the interoperability documentation to demonstrate compliance with the IR.

Such interpretation may also be supported, for example, by Article 11 (1) of the SPI Regulation [11], which states "*ANSPs which can demonstrate or have demonstrated that they fulfil the conditions set out in Annex VIII shall conduct a verification of the systems referred [..].*".

The means for supervising fulfilment of these conditions are not prescribed and should be agreed as part of the detailed process of the NSAs recommended in this Section.

4.5. Monitoring of IRs/CSs/technical standards

The main responsibility of the NSAs is to perform the tasks assigned to them under the four SES basic regulations and Implementing Rules. NSAs may also have other tasks under national law. In any case, in order to be able to perform tasks under the SES legislation, NSAs should follow the developments of that regulatory framework.

It is advised that NSAs follow closely or participate in the drafting of IRs, standards or guidance material at EU level. For example, it is recommended that the NSAs establish communication with their national representative on the Single Sky Committee and other relevant bodies such as EASA committees, ICB, ESOs, etc. The NSAs should be aware of the regulatory framework for interoperability and should engage in dialogue with the ANSPs where there are changes to these requirements, such as new IRs.

It is therefore recommended that the NSA adopt a proactive approach by:

- ensuring that ANSPs are aware of new regulatory requirements;
- requesting that ANSPs indicate how they plan to achieve compliance with the requirements and their target dates in advance of the applicability dates, as this may contribute to timely implementation;
- assessing the answers received;
- taking action if necessary.

This process may be facilitated by an agreement between the NSA and the ANSPs to conduct this exchange using a compliance matrix demonstrating that all the relevant requirements have been addressed. This matrix may not necessarily include evidence on how requirements have been met but may include information about the plans to achieve compliance.

Some NSAs have adopted a practice of sending a questionnaire based on the NSA analysis of the applicable IRs to the ANSPs, prompting them to confirm their compliance or their plans to achieve compliance. A questionnaire is sent for each IR and the ANSPs are requested to provide their answers once or twice a year.

In another instance the NSA requests the ANSPs to provide a compliance matrix for each IR (giving the evidence for each system concerned), and if any non-compliance is apparent the ANSPs should submit a plan on how to achieve compliance. The NSA may also request the ANSPs to deliver an update of the compliance matrix in the event of changes in the legislation, systems or statements of compliance (DoC or DSU).

4.6. Monitoring of planned medium-term changes

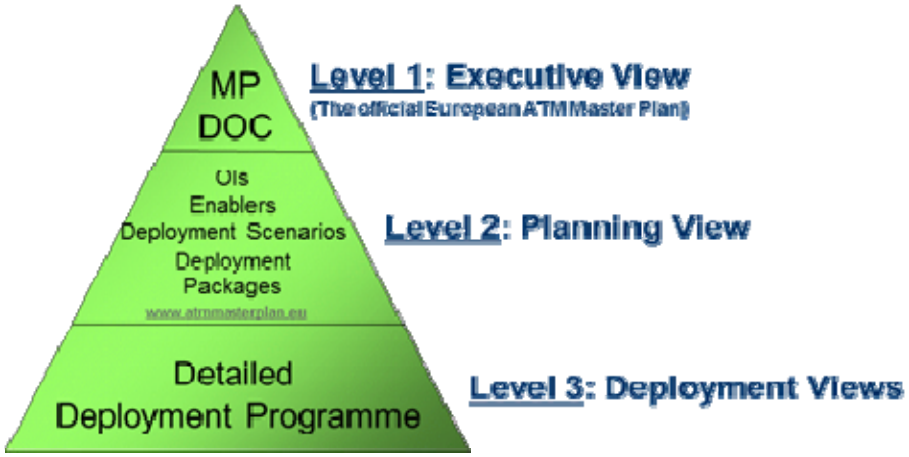
To support their work on the supervision of the IOP Regulation and IRs, NSAs may use information available to them under other legislation or European initiatives. With the obligations of the NSAs under the SES performance scheme, the NSAs will receive information from the business plans of the ANSPs and their planned investments in technologies (Article 10 of the Performance Regulation [17]).

With this information on the ANSPs' plans, the NSAs will be able to connect the investment plans to the applicability dates of the regulatory requirements, including the deployment of new technologies. Where the NSAs identify a potential inconsistency, they should advise the ANSPs to take the appropriate actions to ensure timely compliance.

4.7. ESSIP/LSSIP and IOP compliance and supervision

NSAs are one of the stakeholders involved in the ESSIP/LSSIP process, which consists in the agreement by the ATM stakeholders to plan and implement technological or operational improvements in the form of objectives containing actions by civil and military ATM stakeholders in the EU and EUROCONTROL Member States.

The ESSIP plan is now part of the European ATM Master Plan and it is the third layer which contains deployment activities. Once agreed and committed, implementation activities will be captured and monitored through the ESSIP/LSSIP process.



As part of the ESSIP/LSSIP process, the NSAs should also monitor the ESSIP/LSSIP planning[13] of the ANSPs, especially in relation to the implementation of the objectives deriving from the IOP IRs [3-11].

With the amendment of the IOP Regulation [1] in SES II [2], some ERs (General ER 2 support for new concepts of operation and specific ER for flight data processing systems, surveillance data processing systems and communication systems) now include a specific reference to the European ATM Master Plan.

It is recommended that the NSAs engage in a dialogue with the ANSPs in order to anticipate the planned changes in relation to the deployment of new technologies and related new or upgraded systems.

4.8. Supervision of compliance

This Section contains the sequence of steps recommended in the process of supervision by the NSA of the ANSPs' compliance with the requirements of the IOP Regulation and IOP IRs.

4.8.1. EATMN representation

The EATMN is a concept developed for the IOP Regulation [1]. The EATMN is subdivided into eight systems listed in Annex I of the IOP Regulation [1]. ANSPs operate systems designed to fit with their local technical, operational and organisational environment. As a result, they need to map their actual system in terms of EATMN systems and EATMN constituents for which they will apply conformity assessment procedures. In other words the EATMN representation is the interoperability-relevant description of the ANSP's system in terms of the eight EATMN systems composed of constituents.

The initial step in performing the conformity assessment for the ANSPs is to define the EATMN representation whereby it is made clear which constituent or system is being verified against which set of requirements (see Section 3 of the CA Guidelines [2]).

These Guidelines recommend that after the ANSPs have mapped their systems they should submit this representation to the NSAs prior to conducting the conformity

[13] http://www.eurocontrol.int/articles/essip-plan

assessment, as a means of facilitating an understanding of which system is to be assessed and the following supervision.

The ANSP determines the boundaries of the system relevant for interoperability compliance. If there is any uncertainty, these Guidelines recommend that the ANSP be encouraged to discuss the IOP applicability (EATMN representation or equivalent IOP material/means) with the NSA before the interoperability documentation is produced (ref. Section 3.3 of the CA Guidelines [2]). If applied, the EATMN representation should be included in the TF accompanying the EC DoV.

4.8.2. Baseline for conformity assessment

In the context of the supervision of compliance, the NSAs will have to be able to trace in the interoperability documentation the regulatory baseline (mandatory legal requirements, i.e. applicable ERs and relevant IRs) and the means of compliance baseline (see definition in Section 2) and the EATMN representation determined by the ANSPs.

To facilitate assessment of the interoperability documentation, these Guidelines recommend that ANSPs and NSAs discuss a priori what is considered as relevant evidence. Annexes III and IV to the IOP Regulation list the minimum required content of the DoCs, DSUs, DoVs and TFs. Sections 5 and 6 of the CA Guidelines [2] contain recommendations for the ANSPs on the completion of the interoperability documentation.

For example, the ANSPs and the NSAs may agree that the ANSPs attach to the TF a compliance matrix which is a document established by the ANSPs providing the rationale showing that the system has been designed to ensure interoperability in its technical and operational environment (see Annexes E and F to the CA Guidelines [2])

In addition the NSAs may request more information with regard to other EU rules and regulations (see Section 2.5 of the CA Guidelines [2]) and additional documents), e.g.

- operational approvals,
- personnel training,
- updated service level agreements.

The NSAs may also require that the ANSP contact the manufacturer for additional accompanying documents such as test reports, manuals and performance specifications.

4.8.3. Use of Community Specifications

Community Specifications may be technical or operational documents. For example, the ADEXP (ATS data-exchange protocol) or the Datalink Specification [ETSI EN 303 214 V1.1.1/03/2011] are purely technical documents, while the Initial Flight Plan Specification is an operational document derived from a manual.

The European Commission publishes the references to the European standards or EUROCONTROL Specifications in the Official Journal of the EU, which gives them the status of Community Specifications. However, the reference in the OJEU does not explicitly say to which ER or IR the Community Specification gives presumption of

conformity. A traceability matrix linking the texts of the specification to the relevant regulatory requirements is associated with each specification, showing to which regulatory requirements it gives presumption of conformity.

Where ANSPs use a CS to achieve a system's compliance, NSAs have to be aware that a CS may not cover all aspects of the system in question. There may be several CSs for a system or there may be aspects of the system that are not covered by the CS; therefore the review of the traceability matrix mentioned above should form part of the review of the interoperability documentation.

Manufacturers declare their constituents as compliant with relevant CSs by completing a DoC. Evidence of compliance consists of the DoC and accompanying documents and must be dated and signed by the manufacturer.

DoCs cover the constituents (conformity of the constituent), but constituents still need to be integrated by the ANSPs in a system which has to be tested and confirmed as compliant with the IOP requirements. ANSPs play the lead role in assessing the acceptability and proving the suitability of a constituent in the process of its integration into one of the EATMN systems, as the latter are operated by the ANSPs. This exercise may in general minimise/negate the need for an in-depth independent assessment by the NSA.

The Community Specification may be found using the search function on the OJEU homepage; insert the keywords "552/2004" and "Article 4".[14]

4.8.4. No Community Specifications

In the absence of CS (or a IR) or in cases where ANSPs do not use CS the ANSPs there is no presumption of compliance and ANSPs will need to build a case supporting their statement of compliance by referring to other documents. These documents might include non-binding ICAO documents, European standards, EUROCONTROL documents, EUROCAE documents, ANSP documents, etc. ANSPs using that option must provide evidence to the NSA of how the technical solution they have chosen fulfils the requirements of the applicable regulatory baseline (ref. Section 4.3 of the CA Guidelines[2]).

Manufacturers self-declare compliance of the constituents where there is no CS against which to declare compliance. In this case the manufacturer must issue a Declaration of Suitability for Use (DSU). The DSU covers the assessment/judgment of the suitability for use of a constituent within its intended ATM environment.

4.8.5. Coordination for submission of the EC DoV and TF

These Guidelines recommend that NSAs advise the ANSPs on what is expected of them, e.g.

- how the documents should be organised and presented,
- compliance matrix, as recommended in Section 4.5, demonstrating that all the relevant requirements have been met for each IR and each system concerned,

[14] http://eurlex.europa.eu/Result.do?arg0=552%2F2004+&arg1=Article+4&arg2=&titre=titre&chlang=en&RechType=RECH_mot&Submit=Search

- additional information such as
    - operational approvals,
    - training requirements (see Section 6.4 of the CA Guidelines [2]),
    - putting into service declaration demonstrating that all the relevant stakeholders are involved;
- submission period prior to the putting into service;
    - Although there is no legal obligation for a submission period prior to the putting into service, this period is often set at 1 month (30 days) in order to give the NSA adequate time to assess the interoperability documentation and request clarifications where necessary before the planned operational date.
    - Some NSAs and ANSPs have agreed on this period informally, while other NSAs have made the period part of their administrative procedures.
    - This submission period may be shortened for time-critical procedures as agreed with the NSA.
- how the interoperability documentation is submitted – this may include
    - signed paper versions,
    - CD-ROM versions or electronic submission.

NSAs and ANSPs may also agree that the NSAs should acknowledge receipt of the interoperability documentation.

4.8.6. Structure and content of the DoV and Technical File

The IOP Regulation [1] stipulates that the elements of the DoV and the TF are to be set out in Annex IV. This Annex lists the mandatory content of the DoV and TF. However, NSAs may require additional information to supervise compliance. It is possible that the NSA and the ANSP will agree on a template for the DoV/TF that includes requirements additional to the mandatory ones.

The DoV must be separate from the Technical File, and its mandatory content is defined in Annex IV to the IOP Regulation (see also Section 7 of the CA Guidelines [2]).

Several NSAs have developed and agreed with the ANSPs a template to be used for a DoV. The template contains guidance for the ANSPs on the level of detail expected in the documentation. Such guidance is then used by the NSAs as a checklist for the completeness and accuracy of the interoperability documentation with regard to both mandatory and agreed scope and content of the interoperability documentation.

For example, the NSAs may instruct the ANSPs to include:

- in the part with the description of the system – sufficient information to give an understanding of the function, scope, extent and configuration of the system to be installed, a diagram of the system and its external interfaces with other systems and the interfaces between its constituents; the description of the

system should enable a clear identification of any parts of the system that remain in place from earlier installations, such as displays or antennas.

The mandatory content of the TF is also defined in Annex IV to the IOP Regulation [1] (see also Section 6 of the CA Guidelines [2]). The mandatory content of a DoC and DSU forming part of the TF is defined in Annex III to the IOP Regulation [1] (see also Section 5 of the CA Guidelines [2]). Traceability to the applicable requirements can be provided in the form of a compliance matrix.

It is recommended that the TF only refers to publicly available regulations, standards and technical specifications providing the baseline for conformity assessment, without including them in the TF. The references should be clear and as precise as possible, allowing traceability to the requirements that were used for conformity assessment (ref. Section 6.2 of the CA Guidelines [2]).

The TF should also contain a reference to the operational procedures/manuals related to the systems and the technical procedures for the maintenance of the systems (see above relevant evidence).

As the owner of the interoperability documentation, the ANSPs must keep the TF up to date throughout the lifecycle of the system. The TF may be requested by any other Member State(s) as set out in Annex IV to the IOP Regulation [1]. The text of the IOP Regulation [1] does not specify whether the State can directly request a copy of the TF from the ANSP or whether it has to go through the NSA. These Guidelines recommend that the request be handled by the NSAs of the respective States with the agreement of the ANSP, since the TF is the property of the ANSP.

Where other States request a copy of the TF, the NSAs should discuss with the ANSP whether there is a need to conclude a confidentiality agreement to protect intellectual property rights or commercially sensitive information.

For templates of DoVs and DoCs/DSUs and checklists used by NSAs, see Annex F.

4.8.7. Supervision of IOP documentation and notification of changes

The IOP Regulation [1] and safety oversight Regulation [14] contain the requirements for ANSPs and NSAs regarding the process of notification and implementation of a change. There is no direct cross-reference between the two and there is no definition of a sequence for the safety assessment and conformity assessment processes. Potentially, there may be a time gap between the two processes. When the NSA receives the interoperability documentation (DoV/TF), it may need to verify that notification of the change has been received as required in the safety oversight Regulation [14].

NSAs may also opt to combine safety and interoperability oversight and to cover the two milestones at the same time.

Safety oversight could also cover compliance with IOP ER 3 - Safety and any relevant IOP IRs.[15]

4.8.8. Assessment of the IOP documentation

After the DoV and TF have been submitted and the ANSPs have applied due diligence in the conformity assessment, there should be an interaction with the NSA in order to confirm that the NSA is satisfied with the declaration of compliance of the constituents and the system with the ERs and the IRs, preferably before the system is put into service (see also Section 3.4). Following the guidance provided to the ANSPs prior to the submission of the interoperability documentation, the NSAs may establish an internal checklist of what should be verified by them as regards the structure and content of the interoperability documentation.

The verification action by the NSAs will assess whether the ANSP has adequately verified that the systems and constituents meet the general and specific essential requirements and the requirements in the relevant IRs.

This assessment is the basis whereby the NSAs ensure the necessary due diligence and fulfil their obligation under Article 7 of the IOP Regulation [1], viz. that only compliant systems are put into service. Article 6 of the IOP Regulation [1] states that only systems meeting the ERs and IRs are to be integrated into the EATMN.

By reviewing the interoperability documentation before the systems are put into service, the NSAs prevent non-compliant systems from being put into service.

4.8.9. Identification of shortcomings in the IOP documentation

Where the NSA identifies shortcomings in the interoperability documentation, these Guidelines recommend that in order for the NSA to ensure safety and continuity of service, initially the NSA should contact the ANSPs, informing them of the identified shortcoming. The NSAs may request clarification and may require plans setting out how the identified shortcomings will be rectified.

In the case of minor shortcomings in EC DoVs (including DoCs and DSUs), TFs or the compliance matrix for each IR, the ANSP may supply the NSA with the missing documents by an agreed date, without having to resubmit the whole set of documents, subject to respecting any other deadlines. The NSAs and the ANSPs should agree on an action plan.

4.8.10. Safeguard measures

As described in Section 3.3, the need to impose safeguard measures involves interactions between the NSA and the ANSP, between the NSA and the Member State, between the Member State and the European Commission, and between Member States and the originator of the DoC/DSU or EC DoV (ANSPs and manufacturers).

[15] EAM GUI 4 Guidelines for the Safety Oversight of Changes of ATM - http://www.eurocontrol.int/sites/default/files/content/documents/single-sky/src/esarr1/eam1-gui4-e1.0.pdf

As NSAs have to ascertain non-compliance, it may be concluded that the reasons for this and the opinion of the Member State will be based on the NSA assessment of the interoperability documentation and the decision to take safeguard measures; no additional supervision will be conducted at national level. Unsatisfactory operation in service will be the responsibility of the ANSP, and this can be identified by the NSA through safety oversight.

The process established at national level for the implementation of safeguard measures should describe the tasks and interfaces among all the parties involved. These Guidelines recommend that the NSA inform the ANSP as soon as possible where it ascertains that there are non-compliances with the ERs or IRs. Action by the NSA may be taken before the system is put into service if non-compliance was apparent from the interoperability documentation. The NSAs may also act retrospectively regarding non-compliance if this becomes apparent when a system is put into service and was not evident from the interoperability documentation.

It is further recommended that the NSA and the ANSP discuss the potential measures and agree on corrective actions. NSAs should also take into account whether the measures will impact adjacent States (cross-border ANS or need to introduce contingency measures, e.g. capacity reduction). In such cases it is also recommended that the NSAs inform the NSAs of these adjacent States about the measures.

4.8.11. Maintenance of IOP documentation

In accordance with Annex IV, Section 4, to the IOP Regulation [1], a copy of the TF must be kept by the ANSP during the lifecycle of the system. Although limited only to the TF, this requirement should be taken broadly to encompass the interoperability documentation or at least the EC DoV and TF. This interpretation is supported by the need to ensure compliance of the lifecycle of the system – demonstration of compliance requires a EC DoV as well as a TF.

Therefore these Guidelines recommend that NSAs request the ANSPs to keep copies of all IOP and related documentation (EC declarations, technical files, accompanying files, certificates) (see also Section 8 of the CA Guidelines [2]).

Such maintenance of interoperability documentation will be necessary to support:

- Renewal of expired certificates by notified bodies or temporary declarations;
- Modifications to the conditions of use detailed in the DoC/DSU;
- System upgrades;
- Corrective actions imposed by the NSAs related to safeguard measures;
- Changes to the regulatory baseline.

ANSPs must ensure that DoVs and TFs are maintained during the lifecycle of the system so that they continue to be aligned with the system and its operation as they evolve. ANSPs should make sure that if the documentation contains any time-limited certificates issued by notified bodies or temporary declarations, their existence is noted visibly and the time limitations are respected (ref. Section 8.1 of the CA Guidelines [2]).

The DoV must be updated and re-submitted with the TF to the NSA where there is an upgrade to a system or constituent (see Article 2 (40) of the framework Regulation [13]). As an upgrade is a change to the operational characteristics of the system, this change must be notified to the NSA under Article 10 of the safety oversight Regulation [14] before the DoV and TF are updated.

In some cases the ANSPs may need to update the TF due to changes other than an upgrade and not to update the DoV. Such changes should still be documented by the ANSPs to ensure consistency. The updated TF should then be re-submitted to the NSA (ref. Section 8 of the CA Guidelines [2]).

ANSPs should also update the DoV and the TF following a change in the regulatory baseline – new IR or an amendment to an existing IR, even in cases where there is no need to upgrade the system, so that compliance with the IR is documented. As part of their monitoring of the regulatory framework, the NSAs may prompt the ANSPs to make these updates.

4.8.12. Verification of associated procedures

In accordance with Article 2 of the IOP Regulation [1], the EATMN also comprises associated procedures, which have to meet the essential requirements and the applicable IRs [3-11]. The ANSPs therefore need to be able to demonstrate that the procedures meet the applicable regulatory baseline. For the purposes of interoperability supervision the associated procedures may be referred to in the TF.

As there is no specific definition of “procedures” they should be understood in the broadest sense as being more than just one type of procedure. The procedures may include user and maintenance manuals as well as operational procedures. This is supported also by the ERs, which refer to systems “operated using appropriate and validated procedures”, including procedures for control staff (ER 3 Safety).

The details of the procedures (e.g. operational, maintenance, training) may be supervised under the ongoing compliance and safety oversight process applied by the NSAs.

4.8.13. On-site audits and on-site inspections

4.8.13.1. Regular audits/inspections

Within the framework of IOP supervision, verification of the DoV/TF may be complemented by IOP audits and/or IOP inspections. These audits can be considered as forming part of oversight under both the IOP Regulation and the service provision Regulation (ongoing oversight). The various activities should be coordinated within the NSA to avoid parallel activities and multiple visits for the ANSPs.

As already mentioned above in Section 3, the IOP Regulation [1] introduces the concept of supervision without details. Article 3 of the IOP Regulation [1] requires compliance of the systems, constituents and associated procedures throughout the lifecycle of the system, an obligation which implies the need for continuous supervision by the NSAs. Therefore the NSAs should envisage the conduct of on-site audits and

inspections in addition to the assessment of the interoperability documentation before a system is put into service.

Prior to the visit, the focus of the on-site audit/inspection should be determined in order to ascertain whether proof of compliance with the IOP Regulation [1] and the applicable IRs [3-11] can be found at the operational sites (e.g. tower) or at the headquarters of the ANSP, where e.g. new systems are being designed and the DoV/TF produced.

It is recommended to focus on the IOP processes of the ANSP instead of looking at DoV and TF details. The expected benefit of these audits/inspections is a better understanding of how the ANSP has implemented IOP processes in accordance with the documented procedures in its organisational environment.

The trigger for an audit/inspection may be the putting into service of a upgraded system (e.g. introduction of CPDLC functionality in an ATM/ATS system) or the amount of shortcomings identified in the submitted DoV/TF.

4.8.13.2. Ad-hoc audits/inspections

In the case of significant shortcomings, it is recommended that ad-hoc visits be made to the premises of the ANSP, e.g. in the case of:

- no satisfactory replies from the ANSP to questions submitted by the NSA;
- lack of evidence of interoperability documentation;
- regular degradation of services due to technical problems.

These visits should complement the regular schedule of IOP audits/inspections and help the NSA to verify whether the ANSPs are able to comply with the requirements of the IOP Regulation [1] and the applicable IRs [3-11].

5. Case studies

5.1.1. DoC/DSU not available

If the manufacturer no longer exists or no longer produces the constituent, or if the constituent is not primarily intended for ATM applications, for example an information display, the ANSP will have to issue a DSU, as the constituent *must* be accompanied by a DoC/DSU in order to be integrated into the EATMN system.

Commercial of the shelf products (COTS) which do not influence the interoperability of the EATMN, therefore are not identified as constituents, do not need a DoC/DSU (e.g. monitor, printer, PC, etc.). The use of COTS by the ANSPs, however, will determine the need to ensure compliance with the IOP Regulation [1] and IRs [3-131]. For example if such product is used by the ANSPs to support decisions made by Air Traffic Controllers in the provision of ATS, then a demonstration of suitability will need to be provided by the ANSP.

If a manufacturer of a constituent fails to provide the ANSP with an EC DoC or EC DSU (i.e. the constituent is not compliant with the ERs and or the IRs), it is not possible, in principle, to put a system using that constituent into service.

Where an ANSP internally produces constituents which are not intended to be placed on the EU market (‘placed on the EU market' means an EATMN constituent or EATMN system is made available for procurement or use by air navigation service providers for use in the EU), the obligation for compliance with the regulatory requirements remains and the ANSP should produce a DSU.

5.1.2. Multiple-location systems

If a system is distributed over several locations, it is still one system and should normally be subject to one EC DoV and TF. However, if putting into service at the various locations occurs at different times, then each putting into service must be accompanied by a separate EC DoV and TF.

Multiple locations may also be taken to mean an end-to-end system, e.g. a surveillance chain (SPI Regulation) comprising several EATMN systems distributed over several locations. In such case the NSA and the ANSPs should agree on the process to be followed. The NSA might advise the ANSPs that if all systems are put into service at the same time, there preferably is only one EC DoV and TF. However, as particular circumstances may vary NSAs and ANSPs may reach different arrangement with several DoVs and TFs to be issued.

5.1.3. Same System installed at different locations

If the same system is to be put into service at various locations, a separate EC DoV and TF should be submitted for each individual location.

5.1.4. Multiple service providers for one system

If two or more certified service providers are involved in the putting into service of one system (e.g. ATSP and CNSP), it should be the ATSP which performs the task of conformity assessment and the issuing of EC DoVs and TFs. Article 6 of the IOP

Regulation [1] refers to the “relevant ANSP” as being responsible for the establishment of EC DoVs and TFs. Relevance should be seen in relation to which of the ANSPs is actually operating the system for handling live traffic.

It is the ATSP which will operate the system to handle live traffic and it is the ATSP which will have to determine the parameters of the systems in relation to the requirements of the service. The CNSP will have to provide the ATSP with the necessary assurance that the system is fit for the purposes of the ATSP. This assurance will have to be added to the TF. To govern their relationship, the two ANSPs will have to put in place the necessary agreements (Article 10 (2) of the service provision Regulation [15]). These agreements must be notified to the NSAs.

5.1.5. Supervision of systems operated by the military

Systems integrated into the EATMN must meet the ERs of the IOP Regulation [1] and comply with the relevant IOP IRs [3-11], regardless of who operates them – civil or military organisations. Member States must ensure that when integrating systems into the EATMN, the military organisations demonstrate compliance of these systems with the relevant regulatory requirements.[16]

Depending on the national arrangements, responsibility for supervision of compliance may be assigned to the responsible national authority exercising the NSA function (civil or military). In States where the military provide services to GAT, different arrangements are made at national level, e.g. in some States there is a specific military NSA, while others have opted to conclude agreements between the Ministry of Transport and the Ministry of Defence[17]. In States where there are both civil and military supervisory authorities detailed arrangements on the supervision of compliance should be laid down with special focus on the OAT/GAT issue.

In the case of systems used by military ANSPs providing services primarily to GAT 18, these are subject to the same conformity assessment requirements as the systems of civil ANSPs.[19]

For systems operated by military ANSPs which do not provide services primarily to GAT (i.e. ANSPs not certified under the common requirements Regulation [16]) the application of conformity assessment should be considered.

The conformity assessment obligations of the IOP Regulation [1] do not apply to military operations and training.

5.1.6. Non-certified service providers

Commercial service providers such as telecommunication service providers20 or entities providing airspace management or air traffic flow management which are not certified as ANSPs in accordance with Article 7 of the service provision Regulation [15]

[16] See Regulation (EC) 1032/2006, Article 8(3) in conjunction with Articles 3(4) and 3(5).
[17] http://www.eurocontrol.int/articles/ses-report
[18] See Article 7.5 of the service provision Regulation – i.e. certified military service providers.
19 Only one State has certified military service providers supervised by a specific military NSA (France).
[20] See Article 9 of Regulation (EC) No 29/2009

fall outside the scope of the IOP Regulation [1] and IR requirements for conformity assessment tasks.

However, there should be a national arrangement and allocation of responsibilities to ensure that the EATMN systems operated by such entities meet the ERs of the IOP Regulation [1] and the relevant IRs [3-11].

5.1.7. Pan-European services and functions

The Framework Regulation [13] makes a distinction between services and functions which is the reason why the providers of ATFM and ASM (defined as functions) are not considered ANSPs and hence not certified under the SES legislation.

The issuing and renewal of certificates for organisations providing pan-European services is provided for in Regulation (EC) No 1108/2009 [19]. As a result, the relevant conformity assessment procedures for the EATMN systems put into service by these organisations in support of pan-European services will be derived from the EASA certification procedures.

Under Article 2 of the Framework Regulation [13], a pan-European provider of ATFM and ASM functions is not an ANSP. Therefore its EATMN systems, both central and local, are exempt from conformity assessment tasks as referred to in Article 6 of the IOP Regulation [1]. While not obliged to produce DoVs and TFs, these providers have to ensure and demonstrate compliance of their EATMN systems (IFPS) with the applicable regulatory requirements (for EU Member States – see Article 3 of the IFPL Regulation [4]).

NSAs must be aware that ANSPs putting EATMN systems into service that relate to these pan-European services and functions will need to perform conformity assessment procedures as required by the IOP Regulation.

5.1.8. Systems for the use of meteorological information

Air traffic service providers must provide a DoV covering systems that use meteorological information to support ATS operations, in accordance with Article 6 of the IOP Regulation [1]. The technical file of the DoV may include a reference to the arrangements required by the service provision Regulation [15] with the meteorological service provider(s), specifying the required quality of service.

The NSAs should note and supervise the conclusion of agreements between service providers under Article 10 (2) of the service provision Regulation [15].

Manufacturers of airborne or ground constituents that make use of meteorological information to inform operational decisions or that integrate an EATMN interoperability function (for example, a common interface) must provide an EC declaration of conformity or suitability for use.

Where a meteorological service provider operates a constituent with an EATMN interoperability function, the air traffic service provider may obtain the technical documentation from the meteorological provider in order to complete the technical file.

5.1.9. Restricted use of constituents

Where NSAs become aware that a constituent does not comply with the applicable requirements, they will have to take measures to ensure that the constituent is not integrated into an EATMN system. As this integration into the EATMN can only be carried out by the ANSPs, it is expected that the NSA will prohibit/restrict the use of the constituent by the ANSP and will have to inform the Commission. There is no need for the NSA to take direct action against the manufacturer.

Annex A - Acronyms

ACID	Aircraft Identification
ADEXP	ATS data-exchange protocol
ADQ	Aeronautical Data Quality
AG-DLS	Air-Ground Data Link Services
AGVCS	Air-Ground voice channel spacing
AIS	Aeronautical Information Service
ANS	Air Navigation Services
ANSP	Air Navigation Service Provider
ASM	Airspace Management
ATC	Air Traffic Control
ATCO	Air Traffic Controller
ATFM	Air Traffic Flow Management
ATM	Air Traffic Management
ATS	Air Traffic Services
ATSP	Air Traffic Service Provider
CA	Conformity Assessment
CNS	Communication Navigation Surveillance
CNSP	CNS Provider
COTR	Coordination and Transfer
COTS	Commercial off-the-shelf products
CPDLC	Controller Pilot Datalink Connection
CS	Community Specifications
(EC) DoC	(EC) Declaration of Conformity (of constituents)
(EC) DoV	(EC) Declaration of Verification (of systems)
(EC) DSU	(EC) Declaration of Suitability for Use (of constituents)
EASA	European Aviation Safety Agency
EATMN	European Air Traffic Management Network
EC	European Commission
ECAA	European Common Aviation Area
EEA	European Economic Area
EGNOS	European Geostationary Overlay Service
ER	Essential Requirements
ESO	European Standards Organisation
ESSIP	European Single Sky ImPlementation
EU	European Union
FAB	Functional Airspace Block
FMTP	Flight message transfer protocol
GAT	General Air Traffic
ICAO	International Civil Aviation Organization
ICB	Industry Consultation Body
IFPL	Initial Flight Plan
IFPS	(Integrated) Initial Flight Plan Processing System
ILS	Instrument Landing System
IOP	Interoperability
ISO	International Standards Organization
LSSIP	Local Single Sky ImPlementation
MET	Meteorological Services for Air Navigation

MoD	Ministry of Defence
MoT	Ministry of Transport
NCP	NSA Coordination Platform
NSA	National Supervisory Authority
OAT	Operational Air Traffic
OJ	Official Journal of the European Union
OLDI	Online Data Interchange
SES	Single European Sky
SES I	First Single European Sky legislation package
SES II	Second Single European Sky legislation package
SESAR	the Single European Sky ATM Research Programme
SPI	Surveillance Performance and Interoperability
TF	Technical File
WG	Working Group

Annex B - References

Short name	Full Title and Reference
1. IOP Regulation	**Regulation (EC) No 552/2004** of the European Parliament and of the Council of 10 March 2004 on the interoperability of the European Air Traffic Management network (the interoperability Regulation), OJ L 96, 31.3.2004, p. 26, as amended.
2. SES II Regulation	**Regulation (EC) No 1070/2009** of 21 October 2009 of the European Parliament and of the Council amending Regulations (EC) 549/2004, (EC) 550/2004, (EC) 551/2004 and (EC) 552/2004, OJ L 300, 14.11.2009, p. 34.
3. COTR Regulation	**Commission Regulation (EC) No 1032/2006** of 6 July 2006 laying down requirements for automatic systems for the exchange of flight data for the purpose of notification, coordination and transfer of flights between air traffic control units, OJ L 186, 7.7.2006, p. 27. **Amended by: Commission Regulation (EC) No 30/2009** of 16 January 2009 amending Regulation (EC) No 1032/2006 as far as the requirements for automatic systems for the exchange of flight data supporting data link services are concerned, OJ L 13, 17.1.2009, p. 20.
4. IFPL Regulation	**Commission Regulation (EC) No 1033/2006** of 4 July 2006 laying down the requirements on procedures for flight plans in the pre-flight phase for the single European sky, OJ L 186, 7.7.2006, p. 46. **Amended by: Commission Regulation (EU) No 929/2010** of 18 October 2010 amending Regulation (EC) No 1033/2006 as regards the ICAO provisions referred to in Article 3(1), OJ L 273, 19.10.2010, p. 4.
5. FMTP Regulation	**Commission Regulation (EC) No 633/2007** of 7 June 2007 laying down requirements for the application of a flight message transfer protocol used for the purpose of notification, coordination and transfer of flights between air traffic control units, OJ L 146, 8.6.2007, p. 7. **Amended by: Commission Regulation (EU) No 283/2011** of 22 March 2011 amending Regulation (EC) No 633/2007 as regards the transitional arrangements referred to in Article 7, OJ L 77, 23.3.2011, p. 23.
6. AGVCS Regulation	**Commission Regulation (EC) No 1265/2007** of 26 October 2007 laying down requirements on air-ground voice channel spacing for the single European sky, OJ L 283, 27.10.2007, p. 25.
7. AG-DLS Regulation	**Commission Regulation (EC) No 29/2009** of 16 January 2009 laying down requirements on data link services for the single European sky, OJ L 13, 17.1.2009, p. 3.
8. Mode S Interrogator Codes Regulation	**Commission Regulation (EC) No 262/2009** of 30 March 2009 laying down requirements for the coordinated allocation and use of Mode S interrogator codes for the single European sky, OJ L 84, 31.3.2009, p. 20.
9. ADQ Regulation	**Commission Regulation (EU) No 73/2010** of 26 January 2010 laying down requirements on the quality of aeronautical data and aeronautical information for the single European sky, OJ L 23, 27.1.2010, p. 6.
10. ACID Regulation	**Commission Implementing Regulation (EU) No 1206/2011** of 22 November 2011 laying down requirements on aircraft identification for surveillance for the single European sky, OJ L 305, 23.11.2011 p. 35.

Short name	Full Title and Reference
11. SPI Regulation	**Commission Implementing Regulation (EU) No 1207/2011** of 22 November 2011 laying down requirements for the performance and the interoperability of surveillance for the single European sky, OJ L 305, 23.11.2011 p. 23.
12. CA Guidelines	Eurocontrol guidelines on conformity assessment for the interoperability Regulation of the single European sky - Ed. 3.0 (20/02/2012).
13. Framework Regulation	**Regulation (EC) No 549/2004** of the European Parliament and of the Council of 10 March 2004 laying down the framework for the creation of the single European sky (the service provision Regulation) (OJ L 96, 31.3.2004, p. 1), as amended.
14. Safety oversight Regulation	**Commission Implementing Regulation (EC) No 1034/2011** of17 October 20011 on safety oversight in air traffic management and amending Regulation (EU) No 691/2010, OJ L 271, 18.10.2011, p. 15.
15. Service provision Regulation	**Regulation (EC) No 550/2004** of the European Parliament and of the Council of 10 March 2004 on the provision of air navigation services in the single European sky (the service provision Regulation) (OJ L 96, 31.3.2004, p. 10), as amended.
16. Common requirements Regulation	**Commission Implementing Regulation (EC) No 1035/2011** of 17 October 2011 laying down common requirements for the provision of air navigation services and amending Regulations (EC) 482/2008 and (EU) 691/2010, OJ L 271, 18.10.2011, p. 23.
17. Performance scheme Regulation	**Commission Regulation (EU) No 691/2010** of 29 July 2010 laying down a performance scheme for air navigation services and network functions and amending Regulation (EC) No 2096/2005 laying down common requirements for the provision of air navigation services, OJ L 201, 3.8.2010, p. 1. as variously amended.
18.	**Decision No 768/2008/EC** of the European Parliament and the Council of 9 July 2008 on a common framework for the marketing of products, and repealing Council Decision 93/465/EEC.
19.	**Regulation (EC) No 1108/2009** of the European Parliament and the Council of 21 October 2009 emending Regulation (EC) No 216/2008 in the field of aerodromes, air traffic management and air navigation services and repealing Directive 2006/23/EC.

Annex C - Web Resources

The main web resources are maintained by the European Commission (http://ec.europa.eu/transport/air/single_european_sky/single_european_sky_en.htm) and EUROCONTROL (http://www.eurocontrol.int/conformity).

C.1 EUROCONTROL Guidelines on conformity assessment for the interoperability Regulation of the single European sky

http://www.eurocontrol.int/ses/gallery/content/public/docs/EUROCONTROL-GUID-0137%20Guidelines%20on%20Conformity%20Assessment%20Ed%203.0.pdf

C.2 SES Framework Regulation

Regulation (EC) No 549/2004 of the European Parliament and Council laying down the framework for the creation of the single European sky

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004R0549:EN:NOT

Regulation (EC) No 550/2004 of the European Parliament and Council on the provision of air navigation services in the single European sky

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004R0550:EN:NOT

Regulation (EC) No 551/2004 of the European Parliament and Council on the organisation and use of airspace in the single European sky

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004R0551:EN:NOT

Regulation (EC) No 552/2004 of the European Parliament and Council on the interoperability of the European Air Traffic Management network

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004R0552:EN:NOT

Regulation (EC) No 1070/2009 of the European Parliament and Council amending Regulations (EC) No 549/2004, (EC) No 550/2004, (EC) No 551/2004 and (EC) No 552/2004 in order to improve the performance and sustainability of the European aviation system

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32009R1070:EN:NOT

Commission Implementing Regulation (EU) No 1035/2011 laying down common requirements for the provision of air navigation services and amending Regulations (EC) No 482/2008 and (EU) No 691/2010

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011R1035:EN:NOT

Commission Implementing Regulation (EU) No 1034/2011 on safety oversight in air traffic management and air navigation services and amending Regulation (EU) No 691/2010

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011R1034:EN:NOT

C.3 Latest status of implementing rules

http://ec.europa.eu/transport/air/single_european_sky/implementing_rules_en.htm

Provides an up to date list of current IRs along with the status of those under development.

C.4 Latest status of Community specifications

http://ec.europa.eu/transport/air/single_european_sky/community_specifications_en.htm

Provides an up to date list of current CSs along with the status of those under development.

C.5 List of notified bodies

http://ec.europa.eu/enterprise/newapproach/nando/index.cfm?fuseaction=directive.notifiedbody&dir_id=128961&type_dir=NO CPD&pro_id=99999&prc_id=99999&ann_id=99999&prc_anx=99999

Provides an up to date list of notified bodies under the interoperability Regulation

C.6 ATM Guidance on the R&TTE Directive

http://ec.europa.eu/enterprise/sectors/rtte/documents/guidance/aeronautical/index_en.htm

Provides a short document containing advice to the application of the R&TTE directive within ATM.

Annex D - IOP Implementing Rules

Regulation	Description	Published	Date of applicability
Regulation (EC) No 1032/2006 on Exchange of Flight Data Between ATC Units Amended by Regulation (EC) No 30/2009	Implementation of COTR - Lays down requirements for the exchange of flight data for the purpose of notification, coordination, and transfer for flights between ATC units and for the purposes of civil-military coordination	6th July 2006	1st January 2009 to all EATMN systems referred to in Article 1(2) in respect of the revision of coordination, the abrogation of coordination, the basic flight data and change of basic flight data process. 31st December 2012 to all EATMN systems referred to in Article 1(2)
Regulation (EC) No 1033/2006 on Procedures for Flight Plans in the Pre-Flight Phase	Implementation of IFPS - Sets common procedures to ensure the consistency of flight plans and associated update messages.	4th July 2006	1st January 2009
Regulation (EC) No 633/2007 on Flight Message Transfer Protocol for Use by ATC Units and Regulation (EU) No 283/2011	Implementation of FMTP - Mandates a common flight message transfer protocol. (Amendment to FMTP Regulation – adopted with Commission Regulation (EU) No 283/2011 of 22 March 2011 amending Regulation (EC) No 633/2007 as regards the transitional arrangements referred to in Article 7)	7th June 2007	1st January 2009 to all systems referred to in the regulations put into service after that date 20th April 2011 to all systems in operation by that date. 31st December 2012 in relation with COTR IR Regulation (EC) 1032. 31st December 2014 – order or binding contract or other versions of IP
Regulation (EC) No 1265/2007 on Air-Ground Voice Channel Spacing in SES	Mandates the introduction of 8.33kHz channel spacing to airspace above FL195.	26th Oct 2007	15th March 2008 for aircraft operators to equip their aircraft with 8.33kHz radio equipment 3rd July 2008 for ANSPs to convert all VHF systems to 8.33kHz for sectors above FL195 and for State aircraft to be equipped with 8.33kHz spacing
Regulation (EC) No 29/2009 on Data link services for the Single European Sky	Implementation of DLS - Establishes requirements for datalink communications between pilots and controllers.	16th January 2009	Aircraft Forward fit: 1st January 2011 Aircraft Retro fit: 5th February 2015 Ground(Core Europe): 7th February 2013 Ground (Central and Eastern Europe): 5th February 2015

Regulation (EC) No 262/2009 on Allocation and Use of Mode S Interrogator Codes	Lays down requirements for the coordinated use and allocation of Mode S interrogator codes.	30th March 2011	Interoperability and performance requirements apply from 1 January 2011
Regulation (EC) No 73/2010 on the Quality of Aeronautical Data and Aeronautical Information	Implementation of ADQ - Sets detailed requirements for aeronautical data and aeronautical information.	26th January 2010	1st July 2013, some articles applying from 1st July 2014
Commission Implementing Regulation (EU) No 1206/2011 on aircraft identification for surveillance for the single European sky	Requirements for systems contributing to the provision of surveillance, their constituents and associated procedures for unambiguous and continuous aircraft identification..	23rd November 2011	9 February 2012, Exemptions for military ATS provision 31 December 2017 and 2 January 2025
Commission Implementing Regulation (EU) No 1207/2011 of 22 November 2011 on performance and the interoperability of surveillance for the single European sky	Requirements for systems contributing to the provision of surveillance, their constituents and associated procedures for harmonisation of performance, interoperability and efficiency of these systems.	23rd November 2011	Performance requirements, ground based systems, SDPS, associated procedures – 13 December 2013 State aircraft – 7 December 2017, 1 January 2019

Annex E - Check List for NSA

Example Check List for IOP Documentation Assessment

IOP Documentation
Verification that the IOP documentation contains a declaration by the ANSP stating which regulations or directives were referred to in order to meet the requirements : - IOP Regulation and/or; - IOP IRs
If an IOP IR is applicable, the NSA needs to verify if the ANSP has been assessed as capable of conducting conformity assessment. If not, has a Notified Body been appointed for the verification of the system?
Timeliness of submission (if applicable)
30 days before putting the system into service?
Time critical putting into service?
Completeness of the IOP documentation
Is there a DoV and the accompanying TF including DoC(s)/DSU(s) and certificates issued by Notified Bodies, if relevant, as well as any locally required documentation ?
Have templates been used (if applicable) ?
Content of the IOP documentation
Does the IOP documentation be compliant with the mandatory requirements ?
Content of the EC Declaration of Verification (DoV) *Annex IV § 1. of the IOP Regulation*

DESCRIPTION	CRITERIA
Regulation References	*Declaration by the ANSP stating which regulations or directives were referred to in order to meet the requirements.*
Name and address of the ANSP	*Name and address of the ANSP clearly mentioned*
Brief description of the system	*NSA to understand the function, scope, extent and configuration of the system to be installed*

Description of the procedure followed to declare conformity of the system (Article 6 of the IOP Regulation)	*or declaration of compliance with the IOP ERs* - *NSA to be able to trace compliance with the IRs and CSs if applicable;* - *For ERs, reference to ICAO requirements/recognised technical documents or Eurocontrol specifications*
Name and address of the notified body which carried out tasks pertaining to the verification procedure, if applicable	*Name, address and identification of the notified body which carried out tasks pertaining to the verification procedure. If a notified body was involved in producing the declaration, a relationship between the notified body and the regulation in question should be indicated (e.g. notified body "X" pursuant to Directive No 1999/5/EC; notified body "Y" pursuant to Regulation (EC) No 552/2004.*
References to the documents contained in the Technical File	*References to the documents contained in the Technical File clearly mentioned*
Where appropriate, references to Community Specifications	*References to Community Specifications clearly mentioned, if appropriate*
All the relevant temporary or definitive provisions to be complied with by the systems and in particular, where appropriate, any operating restrictions or conditions	*All the relevant temporary or definitive provisions to be complied with by the systems and in particular, where appropriate, any operating restrictions or conditions.* *If there are no operating restrictions or conditions, this should be explicitly stated.*
If temporary: duration of validity of the EC declaration	*If temporary: duration of validity of the EC declaration clearly mentioned.*
Identification of the signatory	*Identification of the signatory clearly mentioned.*
Verification Procedure for systems *Annex IV § 2. of the IOP Regulation*	
Verification of systems is the procedure whereby an air navigation service provider checks and certifies that a system complies with the IOP Regulation and may be put into operation on the basis of this Regulation. The system is checked for each of the following aspects:	

- Overall design;	*The documentation must show that the system meets all the requirements. This can be done, for example, by comparing the requirements of the air navigation service provider or those of the implementing rules with the performance characteristics achieved.* *The statements must include quantitative and qualitative information.* *Supporting documents can take the form, for example, of specifications, requirement documentation or acceptance documentation.* *The system's interfaces (both external and between its various constituents) may also be explained by means of a detailed diagram or a description of the system.*
- Development and integration of the system, including any particular constituent assembly and overall adjustments;	*The assembly of the system constituents may be explained previously under the section "Description of the EATMN system".* *As regards the system integration, it is necessary to demonstrate how the system fits into the existing system environment (in technical and operational terms).* *Information on the interface specifications should be provided here.*
- Operational system integration;	*It must be explained how the system will be put into operation; this may be demonstrated e.g. by an integration plan or a transition plan or by the results of (integration) tests, technical acceptance tests or operational acceptance tests.* *The documentation must demonstrate that the necessary qualification measures have been taken and that their implementation has been verified in the acceptance tests.*
- Specific maintenance provisions if applicable.	*These include technical system operating instructions, operating instructions for system engineers and technical instructions on use.*
Technical file (TF) *Annex IV § 3. of the IOP Regulation*	
The technical file accompanying the EC Declaration of Verification must contain all the necessary documents relating to the characteristics of the system, including conditions and limits of use, as well as the documents certifying conformity of constituents where appropriate.	

Indication of the relevant parts of the technical specifications used for procurement that ensure compliance with the applicable implementing rules for interoperability and, where appropriate, the Community specifications	*It contains indication of the relevant parts of the technical specifications used for procurement that ensure compliance with the applicable implementing rules for interoperability and, where appropriate, the Community specifications.* *This point may have already been covered under the section "Overall design" of the verification procedure.*
List of constituents as referred to in Article 3 of this Regulation	*It contains the list of constituents.*
Copies of the EC DoC or DSU with which the above mentioned constituents must be provided in accordance with Article 5 of this Regulation accompanied, where appropriate, by a copy of the records of the tests and examinations carried out by the Notified Bodies	*It contains the copies of the EC DoCs and/or DSUs of the constituents.*
Where a notified body has been involved in the verification of the system(s), a certificate countersigned by itself, stating that the system complies with this Regulation and mentioning any reservations recorded during performance of activities and not withdrawn	*Where a notified body has been involved in the verification of the system, it contains a certificate countersigned by the notified body, stating that the system complies with the regulation (including any restrictions), with reference to the regulation.*
Contains all the necessary documents relating to the characteristics of the system, including conditions and limits of use, as well as the documents certifying conformity of constituents where appropriate	*Provisions of documentary proof of system tests carried out, documentation on the installation configuration and technical and operational acceptance documents demonstrating that the technical and operational requirements laid down for the system have been met by it and that interface provisions have been complied with.*
Technical file (TF) – Additional information	

Includes traceability to the requirements used for conformity assessment – Regulatory and MoC baselines.

Might be supported by:

- Accompanying documents – instructions, manuals, implementation conformance statements, performance specifications, Examination Certificate (if NB has been involved;
- Compliance matrix if agreed;
- Documents on associated procedures;
- Reference to the notified change, if necessary, under the Safety Oversight Regulation;
- Indication of relevant safety objectives, safety requirements and safety related conditions met by the system;
- Documents according to local legal requirements;
- Documents according to other international legal requirements – other EU directives, regulations (see Section 2.5.1 CA Guidelines).

Content of the EC Declaration of Conformity (DoC) or Suitability for use (DSU) *Annex III § 3. of the IOP Regulation*	
DESCRIPTION	**CRITERIA**
Regulation References	*Which Regulations or directives were referred to in order meet the requirements*
Name and address of the manufacturer	*Name and address of the manufacturer or of the manufacturer's authorised representative established in the Community (trade name and full address and, in the case of the authorised representative, also give the trade name of the manufacturer).*
Description of the constituent	*Brief description of the constituent indicating the system's function and scope, with characteristics, conditions for and limitations on use.*

Description of the procedure followed in order to declare conformity or suitability for use (Article 5 of the IOP Regulation)	*Indication of conformity assessment procedures pursuant to Council Decision No 768/2008/EC and results of the assessment, if a special procedure has not been stipulated by a regulation (Implementing Rule) or directive (e.g. Annex III Parts A and B of Regulation (EC) No 1265/2007).* *The conformity assessment procedures used must be referenced to the regulation/guidelines.* *If procedures are indicated which require a notified body, the details of the notified body must be given in the corresponding chapter.*
All of the relevant provisions met by the constituent and in particular its conditions of use	*All of the relevant provisions met by the constituent and in particular its conditions of use.* *If no such conditions exist for its use (it may have already been covered under the section 'Description of the constituents'), then this should be explicitly indicated.* *The relevant provisions may be standards, or regulations/technical specifications of ANSPs, manufacturers, EUROCONTROL, EUROCAE, EASA or ICAO, which the constituent complies with in relation to Regulation (EC) No 552/2004 and relevant implementing rules on interoperability.*
if applicable, name and address of notified body or bodies involved in the procedure followed in respect of conformity or suitability for use and date of examination certificate together, where appropriate, with the duration and conditions of validity of the certificate	*Where necessary, name, address and identification number of the notified body/bodies involved in the conformity or suitability for use procedure.*
where appropriate, reference to the Community specifications followed,	*Community specifications can only be applied as a whole to demonstrate compliance with the requirements.*
identification of signatory empowered to enter into commitments on behalf of the manufacturer or of the manufacturer's authorised representative established in the Community.	*Signatory clearly mentioned.*

Example Check List to check compliance with ERs

Please refer to Annexes E and F of the CA Guidelines

Annex F - Templates

Template DoC / DSU (DE)

EC DoC / DSU	
Name and address of manufacturer or air navigation service provider (if the latter is the manufacturer)	**Constituent/scope**
…… …… ……	*Name and scope of the constituent*
System allocation:	*See Annex I to (EC) Regulation No 552/2004*

1. General information relating to the constituent:
1.1 Regulation reference number
[Declaration by the air navigation service provider stating which regulations, implementing rules or directives (e.g. Regulation (EC) No 552/2004, Regulation (EC) No 1265/2007, Directive 1999/5/EC) were used in order to meet the requirements. Example: Essential requirements pursuant to Regulation (EC) No 552/2004]
1.2 Manufacturer information
[Name and address of the manufacturer or of the manufacturer's authorised representative established in the Community]
1.3 Description of the constituent
[Brief description of the constituent indicating the system's function and scope, with characteristics, conditions for and limitations on use. If no such conditions or limitations exist, this should be explicitly indicated. *A simple diagram of the constituents and their system environment, including interface type. An indication of whether the declaration refers to hardware and/or software.* *If necessary, a further technical file with reference numbers.]*
1.4 Description of the procedure followed in order to declare conformity or suitability for use
[Indication of conformity assessment procedures pursuant to Council Decision No 768/2008/EC and results of the assessment, unless a special procedure has been stipulated by a regulation (implementing rule) or guidelines (e.g. Annex III Parts A and B of Regulation (EC) No 1265/2007). *The conformity assessment procedures used must be referenced to the regulation/guidelines.* *If procedures are indicated which require a notified body, the details of the notified body must be given in section 1.6.* *Note: Decision 93/465/EEC was repealed by Decision No 768/2008/EC]*
1.5 Relevant provisions
[All of the relevant provisions met by the constituent and in particular its conditions of use. *If no such conditions exist for its use (it may have already been covered under section 1.3 'Description of the constituents'), then this should be explicitly indicated.*

The relevant provisions may be standards, or regulations/technical specifications of ANSPs, manufacturers, EUROCONTROL, EUROCAE, EASA or ICAO, which the constituent complies with in relation to Regulation (EC) No 552/2004 and relevant implementing rules on interoperability. There is no need for the relevant provision to make reference to individual points of the essential requirements of Regulation (EC) No 552/2004. Where the EC declaration is also produced in relation to other regulations/directives, the relevant provisions must also be stated in this respect.]

1.6 Notified bodies

[Where necessary, name, address and identification number of the notified body/bodies involved in the conformity or suitability for use procedure. In cases where a notified body is involved, the reference between the Regulation/Directive/Decision No 768/2008/EC and the notified body must be indicated (e.g. notified body "X" in Directive 1999/5/EC; notified body "Y" in Regulation (EC) No 552/2004; notified body "Z" in Module B of Decision No 768/2008/EC).]

1.7 Reference to the Community specifications

[Community specifications are published in the Official Journal of the European Union (Regulation (EC) No 552/2004, Articles 4.3 and 4.4.

It should be borne in mind that Community specifications can only be applied as a whole to demonstrate compliance with the requirements. Partial application of Community specifications is not in principle permissible.

Note:

If the functions of a constituent are such that there is only limited applicability of a Community specification, the constituent may comply only with the corresponding parts of the said Community specification.. In such cases, the partial application of a Community specification is permissible and must be explicitly mentioned here.]

1.8 Identification of the signatory

[Name and function of the two signatories, including company address]

2 Declaration:

The manufacturer [Name, Headquarters] hereby declares that the constituents described above:

☒ ***have been assessed and meet the applicable Community Specifications.***

☐ ***have been considered for their suitability for use within the ATM context.***

Place, date	**1. Signatory** p.p. *Name in capital letters*	**2. Signatory** p.p. *Name in capital letters*

Template DoV (DE)

EC declaration of verification for systems (EC DoV)

0. General information and classification

0.1 General information on the air navigation service provider and the system

Name and address of the air navigation service provider	**System / location**
…….. …….. ……	*[Name and location or scope of the system]*
System allocation	*[See Annex I to Regulation (EC) No 552/2004]*

0.2 Classification on the basis of safety relevance

[Pursuant to Article 8 of Regulation (EC) No 1315/2007, all safety-related changes should be notified to the Bundesaufsichtsamt für Flugsicherung *(BAF) ("notification of a planned safety-related change"). The document number assigned by the BAF must be stated. If the EC declaration of verification refers to a project to which Article 8 of Regulation (EC) No 1315/2007 does not apply, only the ANSP's internal file number/title need be indicated.]*

[NB: Information on this point is not necessary for "old systems".]

◉ *Sicherheitsrelevante Änderung*	○ *Sonstiger Vorgang*
[= safety-related change]	*[= other project]*

0.3 Only for EC DoVs which contain safety-related changes

0.3.1 BAF file number	*[BAF reference number from the "opinion on the notification of a planned safety-related change"]*
0.3.2 Title of file	*[Title of file from the "notification of a planned safety-related change"]*
0.3.3 Date of notification	*[Date of notification from the "notification of a planned safety-related change"]*

0.4 Only for EC DoVs which do not contain any safety-related changes (other project)

ANSP's internal file number or internal file title	

1. General information relating to the system

1.0 Impact on external systems of other air navigation service providers	☐ *Ja* *[= yes]*	☐ *Nein* *[= no]*

[Where there is an impact on external systems of other air navigation service providers, indicate the organisation concerned. Any air navigation service provider which makes changes to its system is obliged to notify other (external) users of the changes in good time.]

1.1 Reference number of the regulation

[Declaration by the air navigation service provider stating which regulations or directives (e.g. Regulation (EC) No 552/2004, Regulation (EC) No 1265/2007, Directive 1999/5/EC) were referred to in order to meet the requirements.]

1.2 Brief description of the system

[Brief description of the system indicating the system's function and scope. A simple diagram of the system and its external interfaces to other systems and the interfaces between its constituents within the system is helpful. It should also be stated whether or not the Declaration refers only to hardware and/or to software.]

1.3 Description of the procedure followed in order to declare conformity of the system

[For example pursuant to Decision No 768/2008/EC or to procedures specified in applicable implementing rules, directives or Community specifications. If any other applicable regulations or directives (e.g. implementing rules such as Regulation (EC) No 1265/2007 or Directive 1999/5/EC) are taken into account in the declaration, any procedures laid down therein for determining conformity or suitability for use should be specified. Reference should be made in the procedure to the regulation/directive concerned.]

NB: Decision 93/465/EEC was repealed by Decision No 768/2008/EC]

1.4 Notified bodies

[Name, address and identification number of the notified body which carried out tasks pertaining to the verification procedure. If a notified body was involved in producing the Declaration, a relationship between the notified body and the regulation in question should be indicated (e.g. notified body "X" pursuant to Directive No 1999/5/EC; notified body "Y" pursuant to Regulation (EC) No 552/2004.]

1.5 Reference numbers of the documents contained in the technical file

[All documents with date and signature, see 3]

1.6 Reference to the Community specifications

[i.e. identification of the Community specifications used]

[NB: Information on this point is not necessary for "old systems".]

1.7 All the relevant temporary or definitive provisions to be complied with by the systems and in particular, where appropriate, any operating restrictions or conditions
[If there are no operating restrictions or conditions, this should be explicitly stated. Where an EC DoV covers several regulations/directives, reference should be made to these in the relevant provisions. The relevant provisions may be standards, or regulations/technical specifications of ANSPs, manufacturers, EUROCONTROL, EUROCAE, EASA or ICAO, which the system complies with in relation to Regulation (EC) No 552/2004 and relevant implementing rules on interoperability. There is no need for the relevant provision to make reference to individual points of the essential requirements of Regulation (EC) No 552/2004. Where the Declaration of Verification is also produced pursuant to other regulations/directives, the relevant provisions must also make reference to these.]
1.8 Duration of validity
[An EC declaration of verification is generally valid once for the service life of the system or until its next amendment. If shortcomings necessitate further subsequent improvements to the system or a limited service life is anticipated, information should be provided regarding such restrictions or time limits.]

1.9 Date of putting-into-service	*[For the draft EC DoV: scheduled date of putting-into-service* *For the final version of the EC DoV: date of putting-into-service]*

***2. Verification procedure** pursuant to Annex IV.2 of Regulation (EC) No 552/2004, and relevant implementing rules* *[Verification of the system as regards the following aspects]*
2.1 Overall design
[The documentation must show that the system meets all the requirements. This can be done, for example, by comparing the requirements of the air navigation service provider or those of the implementing rules with the performance characteristics achieved. The statements must include quantitative and qualitative information. Supporting documents can take the form, for example, of specifications, requirement documentation or acceptance documentation. The system's interfaces (both external and between its various constituents) may also be explained by means of a detailed diagram or a (verbal) description of the system.]
2.2 Development and integration of the system, including in particular constituent assembly and overall adjustments
[The assembly of the system constituents may if necessary be explained previously under "1.2 A brief description of the system". *As regards the system integration, it is necessary to demonstrate how the system fits into the existing system environment (in technical and operational terms). Information on the interface specifications should be provided here.* *NB: Information on this point is not necessary for "old systems".]*
2.3 Operational system integration
[It must be explained how the system will be put into operation; this may be demonstrated inter alia by an integration plan, a transition plan or a cutover plan, or by the results of (integration) tests, technical acceptance tests or operational acceptance tests. *The documentation must demonstrate that the necessary qualification measures*

(familiarisation and training measures) have been taken and that their implementation has been verified in the acceptance tests). *NB: Information on this point is not necessary for "old systems".]*
2.4 Specific system maintenance provisions, if applicable
[These include technical system operating instructions, operating instructions for system engineers and technical instructions on use.]
***3. Technical files** pursuant to Annex IV.3 to (EC) Regulation No. 552/2004*
3.1 Indication of the relevant parts of the technical specifications used for procurement purposes
[May have already been covered by the information under "2.1 Overall design"]
3.2 List of constituents
[Comprises hardware and software constituents]
3.3 Copies of the EC declaration of conformity or suitability for use for the corresponding constituents (Article 5), where appropriate with a copy of the records of the tests and examinations carried out by the notified bodies
[NB: Information on this point is not necessary for "old constituents".]
3.4 Certification of a notified body, if one was involved in the verification of any system
[A certificate countersigned by the notified body, stating that the system complies with the regulation (including any reservations), with reference to the regulation/directive and the notified body (e.g. notified body "X" pursuant to Regulation (EC) No 552/2004, notified body "Y" pursuant to Directive No 1999/5/EC.]
3.5 Records of the tests and installation configurations proving that the essential requirements and specific requirements contained in the relevant implementing rules (conformity) have been met, if no notified bodies were involved in the verification of the systems.
[Provision of documentary proof of system tests carried out (e.g. test reports), documentation on the installation configuration and technical and operational acceptance documents demonstrating that the technical and operational requirements laid down for the system have been met by it and that interface provisions have been complied with.]

Other documentation
<u>The following documentation</u> *must be forwarded before the system is put into service:*
3.6 Technical acceptance test reports (final version)
3.7 Operational acceptance test reports (final version)
3.8 Flight calibration results (provisional flight calibration results of the initial flight calibration(s) prior to the putting-into-service of the systems/constituents or up-to-date flight calibration results in the case of old systems or old constituents)
4. Compliance matrices
4.1 Compliance matrix pursuant to Annex II to Regulation (EC) No 552/2004
[In the framework of the EC declaration of verification for systems, the essential requirements of Annex II to Regulation (EC) No 552/2004 should be taken into account. In the case of "old systems", the essential requirements *- No. 2, support for new concepts of operation,* *- No. 5, environmental restraints, and* *- No. 6, principles governing the logical architecture of systems* *under Part A (General requirements) need not be taken into account.*
4.2 Compliance matrix pursuant to relevant implementing rules
[If implementing rules are relevant to the system, a corresponding compliance matrix must be provided for each relevant implementing rule.]
5. Declaration
The air navigation services provider [Name, Headquarters] hereby declares that the system described above has been the subject of an EC verification in accordance with the relevant implementing rules for interoperability and hereby confirms that the essential requirements of the aforementioned regulations have been met.

Place and date of the EC DoV	**1. Signatory** *p.p. [name in capital letters]* *[Function of the first signatory]*	**2. Signatory** *p.p. [name in capital letters]* *[Function of the second signatory]*

Template for DSU (UK)

Interoperability Declaration
{constituent} EC Declaration of Suitability for Use

{Document Reference Number & Issue Number}

Regulation reference	Regulation (EC) No **552/2004** Of The European Parliament And Of The Council Of 10 March 2004 on the Interoperability of the European Air Traffic Management Network (The Interoperability Regulation) *{and, where applicable, Implementing Rule xxxx}*
Name & address of manufacturer or agent	*{Company Name* *Company Address* *Company Postcode}*
Description of the constituent	*{Describe the specifics of the equipment and its function and scope (including permitted variation of configuration where applicable) in sufficient detail to convey the specific equipment details and intended use (and limits of use) of the constituent. Include model name, type number and its likely integration to ANSP systems or applications such as:* • *Meteorological Display Equipment – i.e. designed to provide wind speed and direction (with 10 and two minute averaging) temperature and pressure in high ambient light, Includes provisions for data export to ATIS.* • *Air/Ground VHF Transmitter – i.e. designed to be rack mounted and includes data interface to operate by remote control in support of communication between ground station and aircraft, using 25kHz single frequency or offset multi-carrier and 8.33 kHz channel spacing in the VHF Aeronautical band (118MHz to 136.975MHz).*
Description of procedure followed in order to declare suitability for use	*{Describe how compliance with any applicable Implementing Rule was established}* ***Or*** *Detail which essential requirements have been met and reference the supporting documentation, such as test reports.* *Declare "[Manufacturer] have read and understood the Essential Requirements pertaining to the {constituent}. I {manufacturer} declare that {constituent} meets all applicable Essential Requirements"} and is therefore suitable for ATM use.*

Define the relevant provisions met by the constituent	*{Define design requirements met such as relevant ICAO SARPs, Eurocontrol/Eurocae/ETSI/ITU specifications, EMC or R&TTE*
Define the relevant conditions of use	*Define details and conditions relevant to the intended use of the constituent that may need to be taken account of by the ANSP when designing the installation, operation and procedures for use. For example, a VHF transmitter may need to be installed and configured in a way particular way to facilitate WT Act Licencing and ANO Approval.*
Name & address of Interoperability Notified Body	*{Provide Name and Full Address of the Interoperability Notified Body involved in the verification procedure, and the date, validity and conditions of the examination certificate* ***Or*** *State "No Interoperability Notified Body has been involved in the verification procedure"}*
Identification of signatory	*{State the name and role of the individual who signs the Declaration on behalf of the manufacturer or agent}* *{Name}* *{Position in Company}*

Signed : …….. **Date:**……

Template for DoV (UK)

{Airport/unit} {System} EC Declaration of Verification

{Document reference number & issue number}

Associated with

{Airport/unit} {System} Technical File

{Document reference number & issue number}

Regulation reference	Regulation (EC) No **552/2004** of The European Parliament and of The Council of 10 March 2004 on the Interoperability of the European Air Traffic Management Network (The Interoperability Regulation) as amended by Regulation EC No 1070/2009. *{Include here reference to any applicable Implimenting Rule complied with}*
Name & address of ANSP	*{ANSP Name* *ANSP Address* *Unit address where the system is to be operated if different}.*
Brief description of the system	*{Provide a high level description of the change. Include sufficient information to give the National Supervisory Authority (CAA) an understanding of the function, scope, extent and configuration of the system to be installed and the Air Traffic Services to be provided.* *Air Traffic Services should be described at the level of:* • *SRA* • *VHF Air Ground Communications* • *Category III ILS.* *The above list is an example, and is not exhaustive}.*
Planned operational date	• *State the planned operational date (IOP documentation to be emailed to the CAA at least 30 days prior to this date).*
Description of Procedure followed in order to declare conformity of the system	*{Describe how compliance with any applicable Implementing Rule or Community Specification was established* ***Or*** *A "Self Declaration to Essential Requirements" with reference to the evidence that supports the declaration such as compliance with the applicable ICAO requirements or recognised technical documents such as Eurocontrol specifications. The detail of this may be contained in the TF}.*

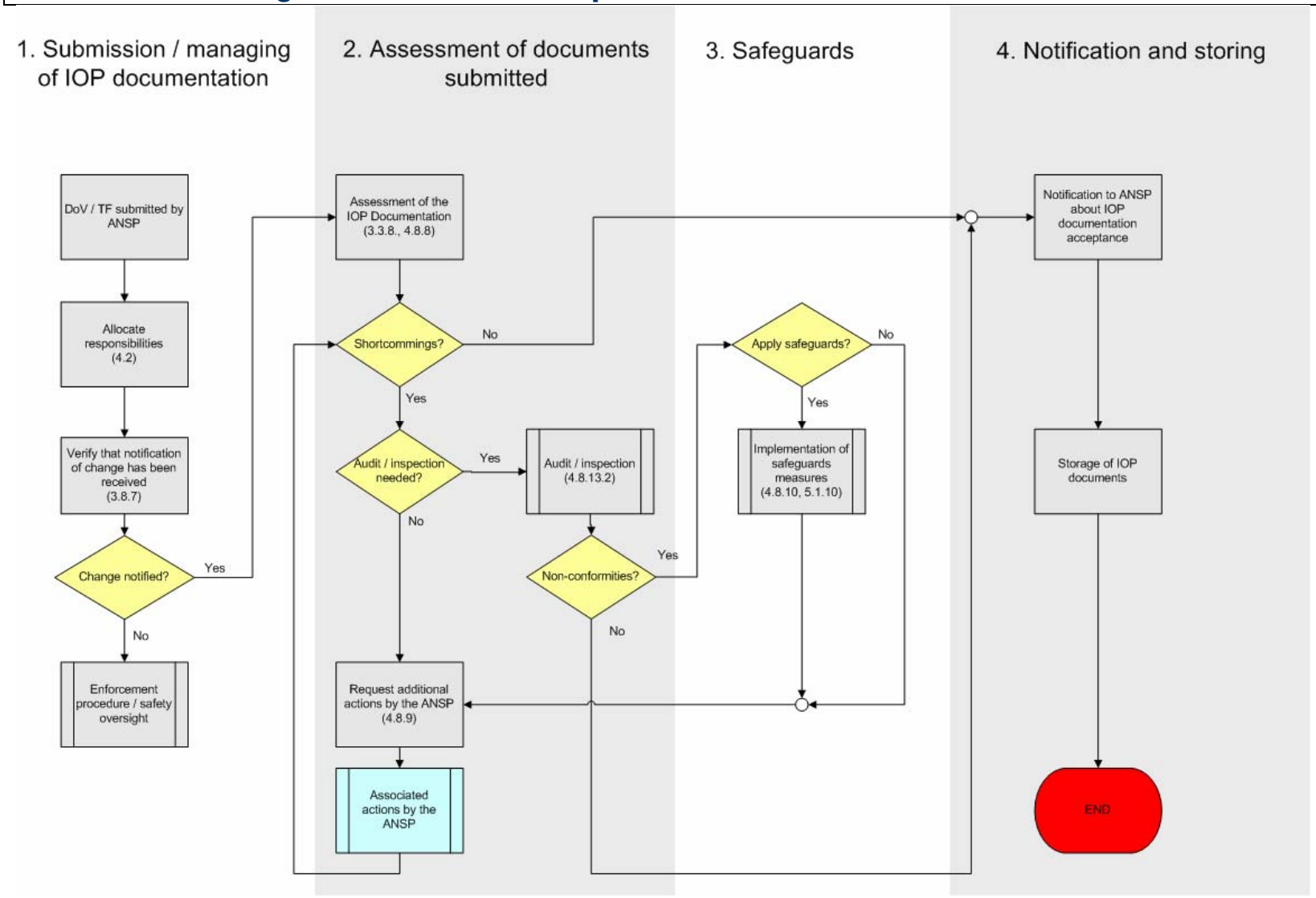
Name & Address of Notified Body	*{Provide Name and Full Address of an Interoperability Notified Body involved in the verification procedure (this does not refer to Notified Bodies that may have been involved for other directives related to the constituent)* ***Or*** *State "*No Interoperability Notified Body has been involved in the verification procedure*"}.*
Technical File documentation references	*{List the documents contained in the Technical File, such as EC Declarations of Suitability for Use (DSU) and EC Declarations of Conformity (DoC).*
Reference to Community Specifications	*{List the Community Specifications to which the system conforms* ***Or*** *State "*No Community Specifications exist for the *{system}" and make reference to any relevant ICAO requirements and any additional recognised compliance documentation employed such as CAPs or Eurocontrol specifications which may support the declaration}.*
Relevant temporary or definitive provisions to be complied with by the system.	The system will comply with definitive provisions described in the Air Navigation Order Article [xxx] Approval *{and with the definitive provision described in the Wireless Telegraphy Act Licence in the case of radio transmitting equipment}*.
State, any operating restrictions or conditions	*{Where relevant state any operating restrictions or conditions – those conditions necessary for operation or necessary operational limitations}.*
Duration and validity	*{State dates of validity of the declaration (for a time limited declaration)* *Or* *State "*There are no time or date limits associated with this declaration*"}.*

DSU/DoC acceptability	I have assessed the accompanying EC Declaration of Suitability for Use / EC Declaration of Conformity and I am content that the declaration and the constituent it relates to, satisfies the requirements of the Interoperability Regulation.
Identification of signatory	*{State the name and role of the individual who signs the declaration on behalf of the Unit}.* *{Name}.* *{Position in the company}.*

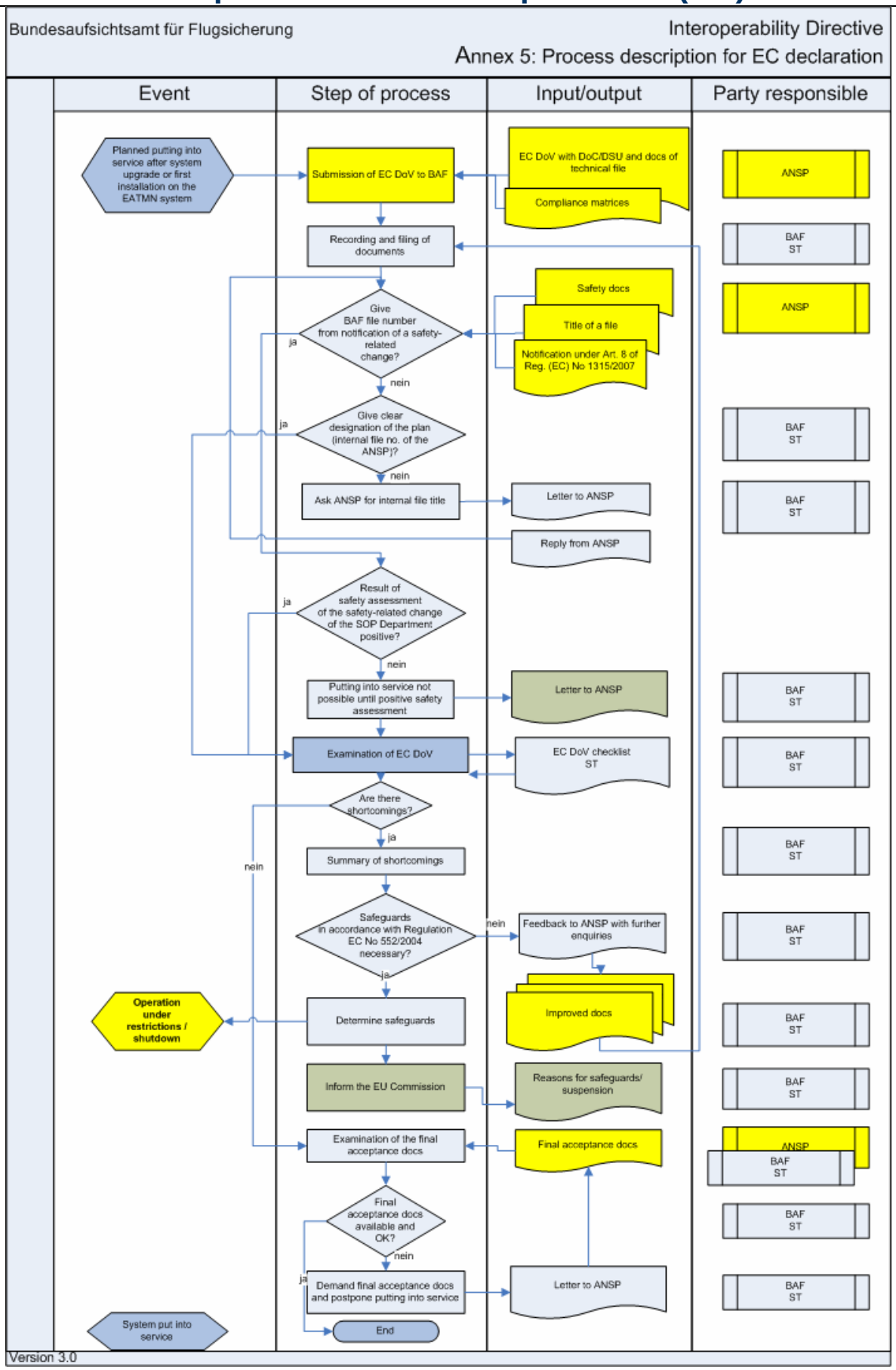
Signed : …….. **Date:**……

Annex G - Processes

NSA IOP oversight recommended process

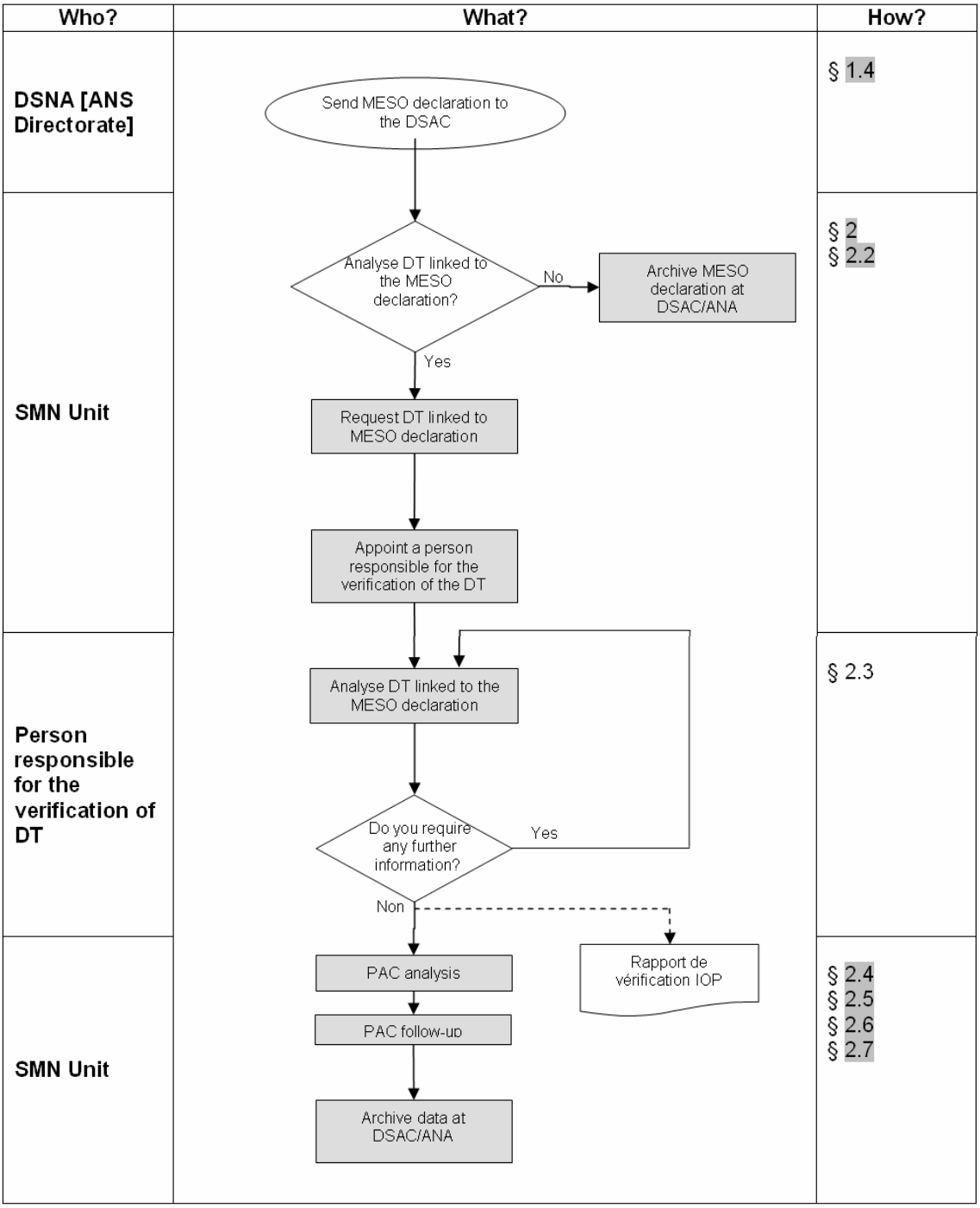


Process description for EC DoV supervision (DE)



Process description for EC DoV supervision (FR)

Verification of IOP technical files



Annex H - Acknowledgements

These Guidelines were produced by the NCP WG on interoperability and, in particular, representatives of:

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NSA UK – Terry DUNFORD

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