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EUROCONTROL Guidelines

**EUROCONTROL Guidelines on
Generic Military Requirements To Be Considered
When Establishing A Functional Airspace Block.**

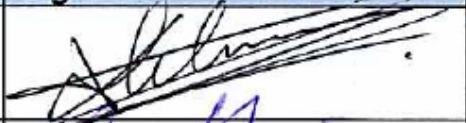




**EUROCONTROL GUIDELINES
ON GENERIC MILITARY REQUIREMENTS TO BE
CONSIDERED WHEN ESTABLISHING OR MODIFYING
A FUNCTIONAL AIRSPACE BLOCK**

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EXECUTIVE SUMMARY

The present document defines a set of requirements, which can be consulted when a functional airspace block (FAB) is to be established or modified.

The need to delineate a list of requirements has been acknowledged by various stakeholders involved in FAB initiatives. This document should be considered as a “checklist” for capturing all FAB-related items from the military point of view.

The creation and modification of a FAB should be based on certain principles agreed on by the participating parties. The institutional framework and the implementation of the FAB should meet all the essential requirements of each partner.

Essential requirements are requirements necessary to comply with the tasks and responsibilities allocated to the entity concerned.

Essential military requirements are those needed to accommodate military activities, which are essential in order to guarantee the level of capabilities and readiness of the armed forces needed to satisfy national security and defence requirements. Military requirements must ensure the continuation of the operations of the national armed forces or other armed forces under the provisions of an international agreement.

Non-essential requirements or optional requirements may be taken into consideration after multilateral negotiation.

The present requirements cover matters relating to regulation, network management, service provision, performance and the airspace users. They are intended to assist military and civil stakeholders in identifying and taking into account military requirements in terms of FAB development.

It is of great importance to note that there is a fundamental difference between the requirements of the air transport system and associated air transport services on the one hand, and those of the armed forces of a State on the other, although all of these share the same airspace. By acknowledging, understanding and accepting these differences, however, it is feasible to accommodate both requirements.

1 INTRODUCTION

In response to the continuing demands for an increase in the safety, capacity, and efficiency of the European air traffic management (EATM) system, the European Parliament and the Council of the European Union have adopted four regulations pertaining to the implementation of the Single European Sky. One of the EC's goals is to encourage the safe, efficient and dynamic use of European airspace.

Seeking to define a Single European Sky, the SES Framework Regulation defines the generic term "functional airspace block" as: "an airspace block based on operational requirements and established regardless of State boundaries, where the provision of air navigation services and related functions are performance-driven and optimised with a view to introducing, in each functional airspace block, enhanced cooperation among air navigation service providers or, where appropriate, an integrated provider".

FABs are considered a fundamental means of enabling the future optimisation of the pan-European ATM system.

The high-level legal framework at FAB level is based on SES mandatory requirements and optional provisions that address a State's civil-military interface and role with respect to military ATM/ANS.

The Airspace Regulation requires multi-State agreements for the establishment of FABs. Such agreements will create the legal and institutional environment for FAB establishment.

The present document contains military requirements that cover matters relating to regulation, network management, service provision, performance and the airspace users. They are intended to assist military and civil stakeholders in identifying and taking into account the military requirements in terms of FAB development.

Due to the voluntary nature of the guidelines, this document as such cannot be transposed in an implementation rule or standard and should only be considered as a checklist of the military requirements offered to the states and which they can use when establishing or modifying a FAB.

Essential requirements are requirements necessary in order to comply with the tasks and responsibilities allocated to the entity concerned.

Essential military requirements are those needed to accommodate military activities, which are essential in order to guarantee the level of capabilities and readiness of the armed forces needed to satisfy national security and defence requirements. Military requirements shall ensure the continuation of the operations of the national armed forces or other armed forces under the provisions of an international agreement.

Non-essential requirements or optional requirements may be taken into consideration after multilateral negotiation.

2 PURPOSE AND SCOPE

The purpose of this document is to define a set of generic military requirements based on military operational principles and considerations of airspace usage, as well as the relevant part of the

existing European legislation. These Guidelines will support State civil and military authorities and other relevant bodies in the decision-making process when creating or modifying a functional airspace block (FAB).

The implementation of the generic military requirements will help the competent civil and military authorities to maintain a commonly acceptable balance in accommodating the aspects of economy and commerce, as well as national security and defence needs in an air traffic environment with increasing capacity demands.

Recognising the need for a pan-European approach, the SES regulations call upon the expertise and experience of EUROCONTROL in pan-European air traffic management with regard to the establishment of FABs. The civil-military nature of the EUROCONTROL Organisation will also facilitate the incorporation of both civil and military airspace and other requirements.

It is important to note that the Guidelines provide a checklist of detailed military requirements for the establishment and modification of FABs. They are neither immutable nor intended to inhibit innovation.

3 REFERENCE MATERIAL

The main reference documents used are the following:

- the European Community (EC) Single European Sky (SES) regulations and implementing rules (SES-I and SES-II);
- the European Commission Guidance material For the establishment and modification of functional airspace blocks (FAB), adopted 03.12.2010;
- "EUROCONTROL Final Report on the European Commission's Mandate to Support the Establishment of Functional Airspace Blocks", dated May 2005;
- the EUROCONTROL PRC's "Executive Final Report on the Evaluation of Functional Airspace Block (FAB) Initiatives and their contribution to Performance Improvement";
- the EUROCONTROL document entitled "Determining Future Military Airspace Requirements in Europe: Final Version" (Annex B to C/CMIC's Report to PC/18).

4 DRAFTING CONVENTIONS

To classify the suggested force of the requirements laid down in this document, the following conventions are used:

- The word "shall" denotes a mandatory requirement.
- The word "should" denotes a preferred requirement.
- The word "may" denotes an option.

The above word convention in this guideline is used to emphasize the importance of the requirement to be considered for the State and especially from the military point of view.

5 DOCUMENT MANAGEMENT

The present EUROCONTROL Guidelines have been developed by the Civil-Military ATM Coordination Division (DSS/CM) to contribute to the establishment of safe and efficient systems and services within FABs.

The established structured and proven consultation mechanisms for developing robust regulatory material offered by the EUROCONTROL Notice of Proposed Rule-Making (ENPRM) framework have been used to support the Agency's development of regulatory products requested in SES mandates. As the consultation is a key element of the regulatory development

process, ENPRM allows the stakeholders and interested parties to review and comment, as appropriate, on the draft guidance material. It was not possible in this case to respect the typical ENPRM formal consultation timescales of two months for the consultation and one-month for the comments review, owing to time constraints. Nevertheless, this Guidelines document has undergone a “tailored” ENPRM consultation process that includes the internal Agency consultation and external consultations with military and civil experts from CIMIC and MilHaG, and relevant stakeholders. At the end of this process, the Guidelines were approved by the Director General and published.

The Guidelines will be reviewed annually and, if required, updated accordingly.

6 DOCUMENT STRUCTURE

The document is organised around the four major areas of interest, namely: the applicability of the SES regulations; modification and notification; principles; and requirements.

The document starts with an introduction, which sets out the background before describing the purpose and scope of the document. The section entitled “Applicability of the SES regulations” describes in which particular areas the SES regulations can affect the military aviation community. The section on “Modification and Notification” describes when a FAB is to be considered as modified and what information will be provided before establishment or modification. The section setting out the “Principles” lists the commonly agreed general principles upon which the requirements are based. The main part of the document is dedicated to the “Requirements” section. In order to maintain an overview, the requirements are grouped on the basis of the differences between the regulatory, ANSP and airspace user levels.

Non-essential requirements or optional requirements (ORs) should clearly be separated from essential requirements and may be taken into consideration after multilateral negotiations.

Requirements for the military organisations concerned should start with a list of generally acknowledged requirements. Once this list is complete, specific national requirements can be added.

7 APPLICABILITY OF SINGLE EUROPEAN SKY REGULATIONS

The Single European Sky regulations and implementing rules are applicable only to EU Member States. Non-EU countries can also apply the SES regulations and implementing rules where an agreement between them and the EU has been formalised. The SES regulations are designed to be applied only to general air traffic (GAT) and do not cover military operations and training. Any military organisation can choose to apply the EC regulations or to comply with the statement by the Member States on military issues related to the Single European Sky. However, this does not mean that the SES regulations will not have an impact on the military aviation community. Military organisations may be affected and involved in various areas, such as:

7.1 Regulatory and Institutional Matters

FAB arrangements could have a significant impact on military operations. Military representation and involvement at different levels of arrangements is required for the creation, modification and management of a specific airspace block. Within these activities, certain military-related aspects may require special agreements between Member States. Military participation should facilitate better accommodation of military requirements in the implementation of new regulations, priority settings, and infrastructural and other changes.

7.2 ATM Network Management Matters

The air traffic management (ATM) network functions facilitate optimum use of airspace and ensure that airspace users can operate preferred trajectories, while allowing maximum access to airspace and air navigation services. These network functions aim to support initiatives at national level and at the level of functional airspace blocks. In order to develop consistent short- and long-term optimisation solutions at network level, which are compliant with the EU performance objectives, appropriate military involvement will be required in all working and consultation arrangements established by the Network Manager.¹

7.3 Service Provision Matters

Cooperation and coordination between civil ANSPs and military ANSPs, controlling military units, military units and military authorities responsible for activities that may affect GAT are all matters requiring military participation.

The functional airspace blocks are key enablers for the enhancement of cooperation between air navigation service providers in order to improve performance and create synergies.

The working relationships between civil and military air navigation service providers, controlling military units, military units, and military authorities responsible for activities that may affect GAT should be organised by means of written agreements or equivalent legal arrangements setting out the specific duties and functions assumed by each party.

The uniform application of the concept of flexible use of airspace (FUA) influences military organisation. Civil-military coordination between civil and military parties with a view to system interoperability supporting the timely sharing and exchange of information and covering all phases of flight is an important aspect.

7.4 Performance Matters

In order to improve the performance of air navigation services in the Single European Sky, stakeholders must establish an ATM performance partnership. The development of a civil-military performance framework and the setting-up of a performance scheme will be a prerequisite for an ATM performance partnership when establishing a FAB. With due regard to military mission effectiveness, civil-military cooperation and coordination are of the utmost importance in order to achieve the performance objectives.

7.5 Matters Relating to the Airspace Users

Access to airspace and services for State aircraft operating as GAT in a FAB environment are also matters of concern. Certain priority procedures to ensure operational freedom and the discharge of security and defence responsibilities need to be determined at the time of establishment of cross-border FAB areas. From the military point of view, aircraft operators are not the only airspace users and consumers of services. Other military airspace users, such as ground forces and the navy, also require certain services and access to the airspace.

8 MODIFICATION AND NOTIFICATION

8.1 Modification

An established functional airspace block shall be considered as modified when a proposed modification results in changes to its defined dimensions. The modification can have a considerable impact on military operations, ATM system organisation and capability. The modification of sectors and sector groups should focus on the operational requirements of both civil and military airspace users.² Existing military route networks, temporary

¹ Working document on the Implementing Rule on the Network Management Functions

² Commission Regulation (EU) No 176/2011 of 24 February 2011 (on the information to be provided before the establishment and modification of a functional airspace block)

reserved/segregated portions of airspace and air-refuelling anchors need to be considered accordingly, and be subject to further optimisation within a FAB. The process of modification of a functional airspace block (changes in airspace organisation and management as well as in the procedures for air traffic services) should take into account the degree of influence on the military component of the ATM system without operational degradation of the situation or the imposition of restrictions on operating system capabilities and military operations.

Consequently, military participation in all phases of the process of modification will be of the utmost importance, taking into consideration military ATM organisational structure and common safety policy. The impact assessment should be carried out in respect of military activities, and a seamless coordination process should take place to harmonise cooperation between all interested parties. Military participation in FAB modernisation should facilitate optimal decision-making with regard to the interests of all parties involved.

8.2 Notification

Member States that establish a functional airspace block must provide information to the Commission, the European Aviation Safety Agency, other Member States and other interested parties, giving them an opportunity to submit their observations with the aim of facilitating an exchange of views and promoting a degree of harmonisation between FABs. The Member States are not expected to provide classified information, business secrets or otherwise confidential information.³

The process of notification could be considered beneficial for the military as it gives the opportunity to provide officially a set of information about already existing arrangements and further developments to third parties. This important information shall be taken into consideration and cannot be ignored when establishing or modifying the FAB. Certain States may use this opportunity to notify in order to avoid any future adverse impact on military organisations and operational activities.

Nevertheless, military authorities will preserve the right to define the level of confidentiality of information to be provided and at the same time facilitate the harmonisation and conformity of this information with the requirements listed in the “Commission Regulation on the information to be provided before the establishment and modification of a functional airspace block”.

Before the modification of a FAB, any changes envisaged in the airspace structure or the regulatory environment of the military component of the ATM system should be provided by military authorities for observation and exchanging of views. The information provided should reflect compliance with the objectives of the FAB and assist Member States in ensuring consistency with other measures of the Single European Sky.

The common agreed procedures for the exchanging of information should be established and an “adequate” consistent set of information should be transferred to the Commission, the European Aviation Safety Agency, other Member States, and other interested parties.

9 PRINCIPLES

The formulation of military ATM requirements when establishing a FAB is based on commonly agreed general principles, international conventions and agreements, common national legislation, and political will. However, the current institutional framework should not be a limiting factor in the establishment of commonly agreed principles. The basic principles listed below are not restrictive.

³Commission Regulation (EU) No 176/2011 of 24 February 2011. (on the information to be provided before the establishment and modification of a functional airspace block),

9.1 National Sovereignty

Every State has complete and exclusive sovereignty over the airspace above its territory.⁴

9.2 Safety

The FAB implementation shall not compromise safety and shall ensure at least the existing levels of safety. Wherever possible, these should be enhanced.

9.3 Safeguarding Essential National Security and National Defence Policy Interests

The FAB arrangement shall respect national defence policy and shall include all necessary measures to safeguard the essential national security of the participating States.⁵ The continuity of the defence operations of all States shall be guaranteed at all times.

9.4 Precedence of International Treaties or Conventions

State obligations under international treaties or conventions shall be respected. State international commitments shall be accommodated.⁶

9.5 Legal/Institutional Matters

Legal/institutional prerequisites must be resolved. ANSP certification, designation and supervision issues exist. Once certified, providers must comply with designation conditions for meeting national requirements. Liability issues need to be resolved.

9.6 Financial Benefit

The FAB initiative shall avoid the squandering of the State defence budget by conducting a cost-benefit and cost-mission effectiveness assessment.

9.7 National Competence and Obligations

With regard to the airspace over its territory and within designated portions of the airspace over the high seas, each of the States shall retain its competence and obligations in respect of aeronautical regulations, rule-making, airspace organisation, relations with international organisations such as ICAO, and with airspace users and concerned third parties.

9.8 Consistent Regulatory Approach

The FAB should have a homogenous regulatory approach throughout its entirety. This will require close cooperation between NSAs and other civil and military authorities.

9.9 Organisational Representation

Civil and military stakeholders should be represented in the FAB organisational arrangements at all levels, as well as in the overall management of a FAB.

⁴ ICAO Doc. 7300/9, Convention on International Civil Aviation, Article 1

⁵ Regulation (EC) No 549/2004 of 10 March 2004 (the Framework Regulation), Article 13: Safeguards

⁶ EUROCONTROL Air Traffic Management Strategy for the years 2000+
Edition 2.0

9.10 Civil-Military Cooperation

States will enhance civil-military cooperation.⁷ Civil-military activities should be conducted in compliance with the FUA concept.

9.11 Flexibility

The FAB initiative will not only consider current military requirements but also enable future requirements. The ATM system should provide the flexibility to cope with the varying operational demands of the participating national armed forces.

9.12 Incremental Approach

On the basis of the experience gained, the project should define milestones, including milestones for the military. An incremental approach should be adopted.

9.13 State Governance

States will exercise strong governance with regard to all FAB arrangements.

9.14 Transparency and Non-Discrimination

The relations between Member States should be sufficiently transparent, and where possible eliminate any discriminatory measures against each other.

9.15 Network Management

Appropriate military involvement in all activities related to ATM network management functions will facilitate the optimisation of airspace utilisation, allowing users maximum access to airspace and air navigation services.

9.16 Information Confidentiality

Information confidentiality remains the responsibility of military authorities, which will decide which information content will be provided to the interested parties.⁸

9.17 Performance Partnership

Civil-military cooperation and coordination is a stable platform for ATM performance partnership, which will improve the performance of air navigation services and network functions and achieve the performance objective.⁹

10 REQUIREMENTS

10.1 Regulatory and Institutional Requirements

10.1.1 State Sovereignty

By virtue of an international State agreement, participating States are allowing their national airspace to be internationally organised for the improvement of overall efficiency for all airspace users.

⁷ Regulation (EC) No 549/2004 of 10 March 2004 (the Framework Regulation), Statement by the Member States on military issues related to the SES

⁸ Draft Commission Regulation (EU) No 176/2011 of 24 February 2011. (on the information to be provided before the establishment and modification of a functional airspace block)

⁹ Regulation (EC) No 691/2010 (laying down a performance scheme for air navigation services and network functions)

In principle, each sovereign State remains responsible for its national regulations (and implementation of EC rules) concerning:

- security and defence;
- safety;
- liability;
- certification, designation and supervision of service providers;
- State exemptions;
- search and rescue;
- investigation of incidents and accidents;
- provision of air navigation services over the national territory.

The States' membership of and obligations stemming from various international associations and organisations shall be taken into account.

Member States shall take the necessary steps to ensure that written agreements between the competent civil and military authorities or equivalent legal arrangements are established or renewed in respect of the management of specific airspace blocks (LoAs between civil and military ANSPs, civil ANSPs and controlling military units, military-military units).

- 10.1.1.1 **Requirement (ER):** The FAB State and ANSP Agreements shall accommodate the various national security and defence policies.
- 10.1.1.2 **Requirement (ER):** The implementation of the FAB shall be flexible enough to work with various levels of civil-military organisational integration (each State can choose the level of cooperation or integration).
- 10.1.1.3 **Requirement (OR):** Special national policy requirements should be included in the FAB State agreement, e.g. embargo measures, head-of-state flights, escorting flights during official visits, etc.
- 10.1.1.4 **Requirement (OR):** The FAB State agreement should include clear arrangements for liability issues concerning the operation of State aircraft and military service provision.
- 10.1.1.5 **Requirement (OR):** The FAB State agreement should include arrangements for the investigation of incidents and accidents in which military personnel or equipment are involved.
- 10.1.1.6 **Requirement (ER):** At any given time, a State shall have the possibility of recovering all its responsibilities, e.g. provision of ATS.

10.1.2 International Agreements

A number of international, bilateral and multilateral agreements partially or entirely cover ATM issues and operations of State aircraft.

The scope and subject of the agreements are heterogeneous, including, for instance, access to national airspace by a third party, diplomatic clearance, exemption from route charging schemes, delegation of service provision and delegation of execution of air policing missions.

Because of the complexity of the international relationships and long-term processes required for the modification of international agreements, the obligations resulting from such agreements should be given special treatment. The political and legal questions stemming from membership of international organisations will need to be subject to the appropriate negotiations and be included in the State-level FAB agreement.

- 10.1.2.1 **Requirement (ER):** Commitments within international organisations and multilateral agreements between States shall be accommodated.
- 10.1.2.2 **Requirement (ER):** States shall notify the other signatory States about international treaties and agreements which need to be taken into account.
- 10.1.2.3 **Requirement (ER):** States shall notify the other signatory States about changes to international treaties and agreements, and new international treaties and agreements, which need to be taken into account. Older agreements shall take precedence.
- 10.1.2.4 **Requirement (ER):** If changes to international treaties or agreements occur which have an impact on the FAB agreement, signatory States shall agree on an acceptable transition period for the preparation and application of the eventual changes.
- 10.1.2.5 **Requirement (ER):** Inter-FAB agreements shall consider military aspects.
- 10.1.2.6 **Requirement (ER):** Military representatives shall participate in the preparation of inter-FAB agreements to ensure that military aspects are reflected in such agreements properly.
- 10.1.2.7 **Requirement (OR):** The State-level FAB agreement should include the arrangements concerning the applicability of diplomatic clearance in the FAB (this should avoid restrictions on operational flexibility and ensure efficient performance of military flight operations).

10.1.3 Military Regulatory Functions

With respect to regulatory functions, States establishing a FAB may decide to set up a single regulatory authority for civil regulations. Military regulatory functions will remain a national responsibility.

At the same time, a FAB agreement should offer the opportunity to develop a harmonised set of rules and/or handling procedures for all kinds of military flight operations, which will safeguard the safe, efficient and economical use of airspace.

- 10.1.3.1 **Requirement (ER):** States shall retain full national responsibility for regulations concerning operations of State aircraft and military ATM provision.
- 10.1.3.2 **Requirement (ER):** The appropriate national military and civil authorities (regulators) shall jointly approve the common FAB concept.
- 10.1.3.3 **Requirement (OR):** Rules and procedures for State aircraft operations and military ATM provision should be harmonised.
- 10.1.3.4 **Requirement (OR):** At the request of a State, a national military authority (regulator) should participate in the supervisory body or bodies of the FAB.

Standardisation of the rules and regulations between the military and civil partners is very important. This should be done via a shared process to ensure an agreed level of understanding. The creation of uniform standards for the operation of civil and military aviation will have a positive effect on the overall safety level.

At the request of its Member States that the national rules for operational air traffic (OAT) be harmonised, EUROCONTROL has developed a set of Specifications for harmonised Rules for Operational Air Traffic under Instrument Flight Rules inside controlled Airspace of the ECAC Area (EUROAT).

EUROAT aims to provide the regulatory framework for OAT-IFR in controlled airspace on a European scale and to appropriately facilitate the interface between OAT and GAT, while minimising the impact on military operational procedures or aerial tactics as much as possible.

Member States may agree or disagree to implement EUROAT at FAB level. Any agreed decisions should be reflected in the State-level FAB agreement. The requirements enumerated below could be considered “essential” if States agree to implement EUROAT, and “optional” if they do not.

- 10.1.3.5 **Requirement(OR):** Military aviation authorities should endeavour to minimise differences between national OAT rules and ICAO provisions through the application of the same definitions, rules, and procedures as specified by ICAO for GAT flights.
- 10.1.3.6 **Requirement(OR):** The appropriate type of airspace reservation, or other methods that are considered sufficiently safe, should be applied if the operational requirements of a flight are incompatible with EUROAT and ICAO provisions.
- 10.1.3.7 **Requirement(OR):** EUROAT should be used by military aircrews and air traffic controllers as a single source document for OAT IFR
- 10.1.3.8 **Requirement(OR):** Member States should implement rules and procedures specified in EUROAT to ensure OAT-IFR harmonisation/standardisation within the controlled airspace of a specified block of airspace.

The certification of ANSPs providing services mainly to GAT is EC regulated. For services provided to operational air traffic (OAT), the decision remains with the State (military regulator). For (military) services provided to OAT and some GAT (non-primary functions) by military ANSPs or other designated entities, the decision is also dependent on the military regulator. It is strongly suggested that, for their own legal protection, military service providers providing services to GAT are certified and designated.

Designation is a national responsibility. Any national supplementary requirement for obtaining designation will have to be clearly stated.

Involvement in the supervision and/or auditing of service provision should be possible if requested by the military authorities.

- 10.1.3.9 **Requirement (ER):** The certification, designation and supervision of service provision to OAT is and shall remain a national responsibility.
- 10.1.3.10 **Requirement (ER):** The certification, designation and supervision of (military) service provision to GAT by military ANSPs is a State decision and shall be clearly regulated in the FAB State agreement.¹⁰
- 10.1.3.11 **Requirement (ER):** Military regulators shall clearly state the supplementary national requirements/conditions needed for designation to provide services in the area of responsibility, e.g. for provision by the civil ANSP of the necessary coordination and surveillance data to the national military organisation.
- 10.1.3.12 **Requirement (OR):** Common supervision of ATS provision related to operations of State aircraft flying as OAT should be agreed on by the States concerned.
- 10.1.3.13 **Requirement (OR):** A State may partially or entirely delegate the supervision of service provision to a third party.
- 10.1.3.14 **Requirement (OR):** A State should seek to certify or designate its military service provider according to national legislation and/or regulation or agreement if providing services to GAT.

¹⁰ Regulation (EC) No 550/2004 of 10 March 2004 (the Service Provision Regulation), Article 7: Certification of ANSPs, paragraph 5

10.1.4 Safety

Safety is the highest priority in aviation; ATM plays an important role in ensuring overall aviation safety. Uniform safety standards and risk management practices should be systematically applied to the European ATM network.

The EUROCONTROL Permanent Commission has approved ATM safety regulatory requirements known as ESARRs. The European Commission has adopted implementing rules incorporating the relevant provisions of the EUROCONTROL Safety Regulatory Requirements (ESARRs) and subsequent amendments to those Requirements. These Requirements are mandatory for all EU and EUROCONTROL Member States, and are designed to harmonise ATM safety regulation across the ECAC area.

National regulations can also include safety measures related to military operations, and should be taken into consideration.

- 10.1.4.1 **Requirement (ER):** FAB arrangements shall include measures to establish and maintain close cooperation between civil ANSPs and military authorities, especially for activities which may affect GAT.¹¹
- 10.1.4.2 **Requirement (ER):** FAB agreements shall take account of national regulations concerning the safety of military operations, e.g. restrictions of areas for supersonic flights, restrictions of UAS operations over populated areas, etc.
- 10.1.4.3 **Requirement (ER):** FAB arrangements shall include the existing safety organisation and procedures in national military organisations, where these are compliant with or equivalent to the EC regulations which incorporate the relevant provisions of the EUROCONTROL Safety Regulatory Requirements (ESARRs).
- 10.1.4.4 **Requirement (ER):** All military activities that could be a potential hazard to GAT shall be adequately segregated by airspace design or separation standards and procedures. Preferably this should be harmonised in the FAB
- 10.1.4.5 **Requirement (ER):** Any significant airspace change shall be supported by a safety assessment.
- 10.1.4.6 **Requirement (ER):** The FAB State agreement shall establish a harmonised just culture for all partners involved in incident reporting.
- 10.1.4.7 **Requirement (OR):** Relevant safety standards and procedures for military sharing a CBA and/or conducting cross-border operations (CBO) should be harmonised.
- 10.1.4.8 **Requirement (OR):** EC regulations which incorporate the relevant provisions of the EUROCONTROL Safety Regulatory Requirements should be applied by all FAB partners, both civil and military.
- 10.1.4.9 **Requirement (OR):** If common service provision for OAT is planned, a single safety management system should be implemented for the common part.
- 10.1.4.10 **Requirement (OR):** Reporting on safety occurrences involving State aircraft operating within a national airspace should be established in accordance with the national procedure of the States concerned.

10.1.5 Security and Defence Policy

As in the case of safety, the security aspects related to ATM operations must be proactively managed at both strategic and tactical levels, and backed up by appropriate procedures and training.

¹¹ Regulation (EC) No 550/2004 of 10 March 2004 (the Service Provision Regulation), Preamble (16)
Edition 2.0

The international dimension imposes the harmonised and effective application of suitable security measures such as RENEGADE.¹²

The ATM system shall take the necessary protective measures to minimise the effectiveness of hostile acts against ATM facilities, systems and data.

The FAB shall safeguard essential security or defence policy tasks.¹³

In accordance with national and international law and international agreements, certain operations require a national decision. Certain operations may take place only over the sovereign territory of States in which special legal provisions, rules and procedures are in place, unless otherwise agreed between the States concerned. Differences in requirements, based on the State's sovereign national security and defence policy, shall be accommodated.

Each State remains responsible for the entire airspace over its national territory. However, execution of air policing and air defence missions¹⁴ may be delegated to a third party by special bilateral agreement.

As far as possible, FAB States will strive for homogeneity of security and defence policies.

In times of crisis, war or under other exceptional circumstances, specific arrangements are required.

States shall maintain and accommodate within the FAB a prerogative to be able to order all aircraft to clear their national airspace.

- 10.1.5.1 **Requirement (ER):** The FAB arrangement shall include the measures necessary to support the surveillance of the airspace under State responsibility, including the capability to detect, identify and evaluate all aircraft using this airspace, e.g. provision of flight plan information, accommodation of air defence notification centres, availability of CNS facilities, etc.
- 10.1.5.2 **Requirement (ER):** The FAB arrangement shall include all measures to enable national action in the event of serious internal disturbances affecting the maintenance of law and order.
- 10.1.5.3 **Requirement (ER):** The FAB arrangement shall include the measures agreed on to enable national action in the event of crisis, war or serious international tension constituting a threat of war e.g. enabling the activation of a plan.
- 10.1.5.4 **Requirement (ER):** States shall make the necessary arrangements to be able fully to resume the operational management of their airspace when national security or national policy is at stake.
- 10.1.5.5 **Requirement (ER):** The FAB arrangement shall include the measures agreed on to enable national or international actions to prevent an act of terrorism.
- 10.1.5.6 **Requirement (ER):** The FAB arrangement shall include the measures necessary for the fulfilment of the Member States' international obligations in relation to the maintenance of peace and international security, e.g. NATO commitments, Renegade arrangements
- 10.1.5.7 **Requirement (ER):** The FAB arrangement shall include all measures enabling the conduct of military operations and training, including the facilities required for exercises.
- 10.1.5.8 **Requirement (ER):** The FAB agreements shall include absolute priority to national security or national policy-related flights (e.g. embargo action, head-of-state flights, interception of renegade aircraft).
- 10.1.5.9 **Requirement (ER):** The military authority shall be able to decide the level of confidentiality of the information shared among interested parties.

¹² RENEGADE: civil platform, e.g. an aircraft that has been assessed as operating in such a manner as to raise the suspicion that it might be used as a weapon to perpetrate a terrorist attack (NATO RENEGADE concept)

¹³ Regulation (EC) No 549/2004 of 10 March 2004 (the Framework Regulation), Article 13: Safeguards

¹⁴ Peacetime use of interceptor aircraft to preserve the integrity of specified airspace

- 10.1.5.10 **Requirement (ER):** The confidentiality of military-related information shared among Member States and other concerned parties shall remain the decision of the military authority.
- 10.1.5.11 **Requirement(OR):** The military authority should remain responsible for the definition of procedures for the management of military-related information shared among Member States. All the concerned stakeholders should remain responsible for the appropriate application of procedures defined by the military authority.

10.1.6 Management Functions and Military Representation

As a multinational FAB could affect any national security or defence policy and the military training and operations of each State, the involvement of the military authorities shall be embedded in the State-level FAB agreement.

At the request of a State, appropriate military representation should be accommodated within the final institutional arrangement.

The EC Regulation states that a written agreement between the competent civil and military authorities or an equivalent legal arrangement must be established in respect of the management of specific airspace blocks.¹⁵

- 10.1.6.1 **Requirement (ER):** An agreement or equivalent legal arrangement between competent civil and military authorities shall be established to arrange the management of the functional airspace block.
- 10.1.6.2 **Requirement (ER):** The FAB management structure shall at least include a coordination structure with the military organisations of all States participating in the FAB
- 10.1.6.3 **Requirement (ER):** The FAB State agreement shall not be modified without the approval of the military and civil authorities of all States.
- 10.1.6.4 **Requirement (ER):** The accession of an additional State/FIR or sector family shall not be considered without the involvement of the States' national military authorities.
- 10.1.6.5 **Requirement (ER):** Any agreement between FAB States and a non-FAB State shall be coordinated with the national military authorities of the concerned FAB States.
- 10.1.6.6 **Requirement (ER):** At the request of a State, the national military organisation shall be represented at various levels in the management structure of the FAB.
- 10.1.6.7 **Requirement (ER):** Changes to military requirements which may affect civil operations in the FAB shall be coordinated with the appropriate civil authorities and be considered at international level/from the network perspective.
- 10.1.6.8 **Requirement (ER):** The military authorities shall support adequate coordination with the Network Manager (to enable his legal obligation stemming from the EC implementation rule).
- 10.1.6.9 **Requirement (ER):** FAB management functions shall be linked with ATM network management functions to ensure consistency with the required level of performance, compatibility, and coordination of activities.
- 10.1.6.10 **Requirement (OR):** When required by Member States, a common military regulator may be created within the FAB management structure and supervisory bodies.

10.1.7 Charging Schemes and Cost Exemption of State Aircraft

The final financial outcome under the provisions of a FAB agreement should be beneficial to both civil and military airspace users. However, the current military cost-benefit analysis questions the

financial benefits that the military might accrue, although work is ongoing to clarify and redefine the accepted outcomes.

The Member States shall come to a settlement on common principles for charging policy.¹⁶ Regarding the provision of ATM services to OAT, the contracting parties should agree on the cost-sharing and/or refunding principles. Nevertheless, it should be necessarily noted that military budgets are restricted and cost-recovery procedures are not applicable for the military.

- 10.1.7.1 **Requirement (ER):** The implementation of a FAB shall not impose unjustified costs on military organisations in terms of investment, transition, and operations.
- 10.1.7.2 **Requirement (ER):** An assessment of the impact of the implementation of a FAB on the military organisations shall be performed.
- 10.1.7.3 **Requirement (ER):** Cost-benefit analyses shall be the result of joint civil-military assessments.
- 10.1.7.4 **Requirement (ER):** Cost exemption of State aircraft is a State decision and shall be included in the State agreement, if not covered by other agreements. (eg Route charges, costs initiated by user pay services, airport charges,...)
- 10.1.7.5 **Requirement (ER):** Costs related to airspace security shall be dealt with while defining the rights and obligations to be met by the designated service providers¹⁷ or by inclusion in the service provision costs.¹⁸
- 10.1.7.6 **Requirement (ER):** Modification of either the national cost exemption policy or the charging scheme regarding State aircraft shall be reflected in mutual agreement of the States, and a reasonable transition period shall be provided for.
- 10.1.7.7 **Requirement (OR):** Member States should introduce a cost exemption policy based on reciprocity.
- 10.1.7.8 **Requirement (ER):** The costs eligible for the deployment of common projects shall be recovered in accordance with the principles of transparency and non-discrimination.¹⁹
- 10.1.7.9 **Requirement (OR):** The use of incentive mechanisms²⁰ should be considered for military organisations.
- 10.1.7.10 **Requirement (OR):** The incentive mechanism aimed at promoting cost-efficiency should consider the costs of military units providing air navigation services with respect to commercial aviation needs.
- 10.1.7.11 **Requirement (OR):** TEN-T funds should be requested for the enhancement of civil-military coordination within a FAB airspace.
- 10.1.7.12 **Requirement (OR):** Member States should introduce a harmonised charging scheme and/or a common cost exemption policy for air navigation services provided to State aircraft.

10.1.8 Host Nations

In the event of a decision to have a common FAB facility located in a State, the host nation shall provide the legal framework to host personnel from other States. The status of the personnel should be agreed by bilateral agreements between the host and the respective FAB States, if not already covered by existing arrangements.

¹⁶ Regulation (EC) No 550/2004 (the Service Provision Regulation), Article 15

¹⁷ Regulation (EC) No 550/2004 of 10 March 2004 (the Service Provision Regulation), Article 8: Designation of air traffic service providers, paragraph 2

¹⁸ Regulation (EC) No 550/2004 of 10 March 2004 (the Service Provision Regulation), Article 15: Charging scheme principles

¹⁹ Regulation (EC) No 550/2004 (the Service Provision Regulation), Article 15a

²⁰ Regulation (EC) No 550/2004 (the Service Provision Regulation), Article 15

- 10.1.8.1 **Requirement (ER):** The FAB State agreement shall include the legal framework to allow military personnel to work and live in a host nation environment.
- 10.1.8.2 **Requirement (ER):** Each State shall have the legal right to establish its national military presence in a common FAB facility as appropriate.
- 10.1.8.3 **Requirement (ER):** The conditions under which national military personnel shall be sent, insofar as such conditions are not laid down in existing agreements, shall be the subject of a separate agreement between the host nation and the State sending the personnel.
- 10.1.8.4 **Requirement (ER):** The FAB State agreement shall ensure that no host nation legislation can hamper, restrict or interrupt ATM provision for the State aircraft of the other States except under special agreed circumstances.
- 10.1.8.5 **Requirement (ER):** The facilities, equipment and systems providing ATM services to exclusively operational air traffic shall be excluded from the scope of the host nation legislation unless otherwise agreed between the FAB States.
- 10.1.8.6 **Requirement (ER):** The FAB State agreement shall include arrangements to ensure continuous operations of all State aircraft in the event of system failure or industrial action in the common FAB facility.
- 10.1.8.7 **Requirement (ER):** The status of foreign personnel working in a common FAB facility shall include the guarantee that they can execute their duties in an uninterrupted way within the territory of the host nation.

10.2 Service Provision Requirements

10.2.1 ASM Requirements

Flexible use of airspace is an airspace management concept described by ICAO and developed by the EUROCONTROL Organisation, in accordance with which airspace should not be designated as either purely civil or purely military airspace but rather considered as a continuum in which all user requirements need to be accommodated to the maximum possible extent.²¹

In a statement on military matters related to the Single European Sky, the Member States of the EC have undertaken to cooperate with each other, taking into account national military requirements, in order to ensure that all users of airspace fully and uniformly apply the concept of flexible use of airspace in all Member States.²²

The implementation of common rules and procedures within the FAB will improve the application of FUA.

FAB airspace is considered as a common resource for all airspace users regardless of national borders. A multilateral agreement will be necessary for the commonly agreed management of airspace. An integrated airspace policy body and a sub-regional AMC will probably help to optimise airspace management.

The reconfiguration of airspace should mainly be based on operational requirements taking into account air traffic flows. Joint civil-military airspace design processes at all levels should ensure the balanced consideration of all needs.

Military airspace needs within the FAB area will mainly be determined by a new generation of aircraft, new weapon systems, multinational and combined air operations and unmanned aircraft systems (UASs). Only through regional cooperation between civil and military authorities can

²¹ Regulation (EC) No 2150/2005 of 23 December 2005 (common rules for the flexible use of airspace), Preamble (1)

²² Regulation (EC) No 2150/2005 of 23 December 2005 (common rules for the flexible use of airspace), Preamble (4)

such airspace requirements, characterised by larger areas, be accommodated in an air traffic environment with increasing capacity demands.

In order to achieve optimum airspace efficiency and mission effectiveness, and to provide more suitable training areas, States may subscribe to bilateral agreements concerning unrestricted access to respective portions of national airspace for certain types of mission.

Each State has the sovereign right to establish an appropriate temporary segregated airspace²³ for military operational needs. Such temporary segregation is necessary to ensure safe separation from military activities potentially hazardous to GAT, but should be limited as much as possible. Pertinent national rules and regulations need to be considered accordingly.

The accuracy of information on airspace status or specific air traffic situations, and the timely distribution of this information to civil and military controllers, directly affect the safety and efficiency of operations.²⁴

The measurement and reporting of airspace structure utilisation is essential to the improvement of airspace design and airspace management. The use of a common or harmonised ASM tool is an important enabler of the FAB.

- 10.2.1.1 **Requirement (ER):** All State military authorities shall be represented in the development and decision-making processes of airspace design.
- 10.2.1.2 **Requirement (ER):** During the design of ATS routes and ATC sectors, existing military airspace requirements shall be taken into account, e.g. maximum distance between airfield and exercise areas, optimum volume of airspace reservation.
- 10.2.1.3 **Requirement (ER):** The design of ATS routes and ATC sectors shall be flexible to allow for the accommodation of future military airspace requirements.
- 10.2.1.4 **Requirement (ER):** Airspace design shall ensure continuous military operations within the national airspace.
- 10.2.1.5 **Requirement (ER):** The design of a FAB shall take into account military operational needs for cross-border areas (CBAs).
- 10.2.1.6 **Requirement (ER):** The design of the FAB sectors and sector families shall not increase the complexity of civil-military coordination.
- 10.2.1.7 **Requirement (ER):** States shall ensure the uniform application of the FUA concept.²⁵
- 10.2.1.8 **Requirement (ER):** Military organisations shall constitute an integral part of the airspace management process at all levels within the FAB.
- 10.2.1.9 **Requirement (ER):** Coordination between civil and military authorities shall be organised at the strategic, pre-tactical and tactical levels of airspace management.
- 10.2.1.10 **Requirement (ER):** Military representation shall be organised in the State or regional AMCs.
- 10.2.1.11 **Requirement (ER):** Airspace management shall take into account the dynamic operational decision-making processes of military operations.
- 10.2.1.12 **Requirement (ER):** A common set of applicable rules or standards shall be agreed for the utilisation of a CBA (this shall include a common set of rules for separation vis-à-vis GAT).

²³ Regulation (EC) No 2150/2005 of 23 December 2005 (common rules for the flexible use of airspace), Preamble (7)

²⁴ Regulation (EC) No 2150/2005 of 23 December 2005 (common rules for the flexible use of airspace), Preamble (16)

²⁵ Regulation (EC) No 551/2004 of 10 March 2004 (the Airspace Regulation), Article 7: Flexible use of airspace, paragraph 1

- 10.2.1.13 **Requirement (ER):** In order to satisfy operational military needs, lateral consistency between lower and upper airspace volumes shall be ensured.
- 10.2.1.14 **Requirement (ER):** Military authorities shall draw up a list to differentiate available movable and non-movable areas (e.g. a shooting range area is a non-movable area).
- 10.2.1.15 **Requirement (ER):** Procedures and a mechanism for regular assessment of airspace use satisfaction by military users shall be established.
- 10.2.1.16 **Requirement (ER):** Civil-military coordination procedures and communication facilities shall allow real-time activation, deactivation or reallocation of airspace allocated at pre-tactical level.
- 10.2.1.17 **Requirement (ER):** Adequate supporting systems shall be put in place to enable the AMC to manage airspace allocation and communicate airspace availability to all affected users.²⁶
- 10.2.1.18 **Requirement (OR):** If so decided by the FAB Member States a single regional civil-military AMC should facilitate the airspace management of the FAB.
- 10.2.1.19 **Requirement (OR):** The airspace management of the FAB should be supported by harmonised and coordinated ASM procedures.
- 10.2.1.20 **Requirement (OR):** The common agreed principles of airspace planning should be applied to ensure harmonised pre-tactical and tactical airspace management.
- 10.2.1.21 **Requirement (OR):** ASM tools that are properly interfaced should be chosen to harmonise planning and coordination.
- 10.2.1.22 **Requirement (OR):** Common rules for the assignment of airspace to military users should be applied.
- 10.2.1.23 **Requirement (OR):** When major air exercises are organised over the territory of one or more States, these States should activate airspace restrictions to allocate the airspace required for the exercise.²⁷
- 10.2.1.24 **Requirement (OR):** The EUROCONTROL guidance document “Future Military Airspace Requirements in Europe” should be used as guidance material for the drafting of national military airspace requirements.

10.2.2 ATS Requirements

Civil or military service providers can effect service provision for OAT. In both cases, military requirements to be met in the FAB can be identified. Service provision shall be subject to written agreements and/or subsequent arrangements.

- 10.2.2.1 **Requirement (ER):** Cooperation and coordination between national or international military and civil air navigation service providers (ANSPs) shall be incorporated into the FAB organisation.
- 10.2.2.2 **Requirement (ER):** ANSPs shall accommodate air policing and air defence missions.
- 10.2.2.3 **Requirement (ER):** ANSPs shall support the seamless execution of State aircraft flights.
- 10.2.2.4 **Requirement (ER):** States shall identify the various types of military operations which can be accommodated by applying the same or nearly the same rules and procedures as are applied to civil aviation, and those military operations which cannot be accommodated and require separate rules and procedures.²⁸

²⁶ Regulation (EC) No 551/2004 of 10 March 2004 (the Airspace Regulation), Article 7: Flexible use of airspace, paragraph 1

²⁷ NATO document C-M (2005)0004, “NATO requirements for the use of airspace”, Annex 1

²⁸ ECIP 2007-2011, objective AOM 13 – MIL 01

- 10.2.2.5 **Requirement (ER):** ANSPs providing services to OAT shall comply with national military regulations or any harmonised rules agreed between States.
- 10.2.2.6 **Requirement (ER):** FAB ANSPs shall be able to provide the information and services required to make it possible to apply national ATM security measures and to comply with international security agreements.
- 10.2.2.7 **Requirement (ER):** The FAB agreement between ANSPs shall ensure that coordination procedures based on direct communication are established between civil and military air traffic controllers when providing services in the same airspace.
- 10.2.2.8 **Requirement (OR):** The civil and military ATS units and/or controlling military units concerned should agree on a common set of procedures to manage specific traffic situations and to enhance real-time airspace management.

10.2.3 AIS Requirements

AIS groups all aeronautical data needed for the execution of flights. The information will in principle not be modified; however, customers may change.

- 10.2.3.1 **Requirement (ER):** Member States shall remain responsible for the provision of aeronautical data within their area of responsibility.
- 10.2.3.2 **Requirement (ER):** Member States shall maintain unrestricted access to shareable military aeronautical information.
- 10.2.3.3 **Requirement (ER):** Static and dynamic aeronautical information shall be easily accessible and available in the English language.
- 10.2.3.4 **Requirement (ER):** AIS data shall be freely shared between FAB members.
- 10.2.3.5 **Requirement (ER):** Member States shall apply measures to protect AIS data from unauthorised use.
- 10.2.3.6 **Requirement (OR):** AIS data should be available centrally (as is the case in the EAD, for example).²⁹

10.2.4 ATFM Requirements

Possible priority procedures for OAT flights are defined by national legislation. Head-of-state flights, emergency traffic, and search and rescue flights constitute some of the traffic exempted from ATFM measures. ATFM-exempted approved status for other flights performed by State aircraft operating as GAT within the CFMU area is granted by the appropriate national authority and is commonly based on reciprocity.

- 10.2.4.1 **Requirement (ER):** Exemptions from ATFM measures for State aircraft shall be applied within the area of responsibility in accordance with national policy unless harmonised in the State agreement.
- 10.2.4.2 **Requirement (OR):** The priority of OAT flights should be harmonised throughout the FAB.

10.2.5 CNS and Interoperability Requirements

A maximum achievable level of civil-military CNS/ATM interoperability is required to:

- ensure safe and seamless operations for both civil and military users;
- minimise necessary exemption policy and special handling procedures.

The use of shared information raises institutional and systems architecture questions which need to be subject to specific arrangements (e.g. secure or sensitive data).

The transmission of flight plan data and radar data to appropriate military units is a basic requirement. The establishment of secure lines of communication should also be considered (e.g. coordination in the event of terrorist action).³⁰

It is required that any data deemed “sensitive” by the military, e.g. flight data relating to specific OAT flights, be adequately protected within (civil) ATM network management systems (such as the CFMU system).

Specific agreements need to anticipate circumstances in which military authorities need to have a direct link to the controllers in charge of an OAT flight when such situations occur. For instance, directives on the conduct of operations should be forwarded directly to such positions, thus avoiding cumbersome procedures through the hierarchy of the service provider.

In order to ensure airspace security, certain States may prefer to use primary surveillance radar (PSR) with secondary surveillance radar (SSR) correlation.

When considering specific aircraft equipage requirements for State aircraft operating within a common airspace, it is evident that for technical and operational reasons compliance with specific equipage requirements is not always possible or cannot be warranted. In particular, it is recognised that combat aircraft are essentially weapons platforms and therefore that equipage priorities must be decided upon accordingly.

The exemption of State aircraft should be based on compelling technical or military reasons and only used as a last resort.³¹ Applicability and exemption agreements for State aircraft should be made known to the relevant air traffic control staff. The appropriate tools, equipment and training required for the service to be exempted or for non-applicable aircraft should be provided when and where necessary.

10.2.5.1 **Requirement (ER):** Any technical change influencing the air navigation services provided to military aviation shall be coordinated with the appropriate military authorities of the States.

10.2.5.2 **Requirement (ER):** System-supported coordination and interfaces with national or international military and civil systems shall be organised in accordance with agreed operational procedures.

10.2.5.3 **Requirement (ER):** FAB arrangements shall include arrangements for the certification of interoperability or interface modules.

10.2.5.4 **Requirement (ER):** Interoperability arrangements shall take into account national security requirements.³²

10.2.5.5 **Requirement (ER):** Civil and military ANSP systems and their constituents shall support the timely sharing of correct and consistent information covering all phases of flight.³³

10.2.5.6 **Requirement (ER):** When required for safety reasons, the timely exchange of basic flight data between civil and military controllers and military control units, including at least the position and flight intention of the aircraft, shall be provided.

³⁰ NATO document C-M (2002)59, “NATO Guidance for the establishment of civil-military air traffic control procedures in light of the new security environment”

³¹ PC Decision PC/03-13, approved on 2 May 2003: Policy guidance for the exemption of State aircraft from compliance with specific aircraft equipage requirements

³² Regulation (EC) No 552/2004 of 10 March 2004 (the Interoperability Regulation), Annex II: Essential requirements, Part A.4: Civil military coordination

³³ Regulation (EC) No 552/2004 of 10 March 2004 (the Interoperability Regulation), Annex II: Essential requirements, Part A.4: Civil-military coordination

- 10.2.5.7 **Requirement (ER):** ATM systems shall include functionalities to deal with specific national security matters.
- 10.2.5.8 **Requirement (ER):** States applying delegation of service provision shall establish a minimum level of common exemption policy for State aircraft concerning the carriage of specific airborne equipment.
- 10.2.5.9 **Requirement (ER):** ANSPs shall accept regulated State aircraft exemptions for specific aircraft equipage requirements.
- 10.2.5.10 **Requirement (ER):** ANSPs shall ensure measures to guarantee the filtering of secure and/or sensitive information and data as requested by States.
- 10.2.5.11 **Requirement (ER):** Secure line connections shall be established as requested by States.
- 10.2.5.12 **Requirement (ER):** Direct communication shall be arranged between all civil and military controllers handling air traffic in the same airspace or adjacent portions of airspace.
- 10.2.5.13 **Requirement (ER):** If State aircraft are not fitted with avionics compliant with GAT requirements, and no exemption policy has been established for that avionic component, States shall guaranty that State aircraft may continue their operation flying as OAT
- 10.2.5.14 **Requirement (OR):** The FAB ATM architecture should facilitate military-military cooperation among States if needed.
- 10.2.5.15 **Requirement (OR):** The use of common data formats between ATC and air defence units should be exploited.
- 10.2.5.16 **Requirement (OR):** Restricted/reserved areas used for air combat manoeuvring should be under radar coverage and at least monitored by an assigned agency.

10.2.6 Cooperation Between ANSPs and National/International Air Defence Organisations

One of the objectives is to determine effective mechanisms and procedures to enhance the response of ATM to security threats and events affecting flights. ATM must support national security for the identification of flights entering a State's airspace or identification zone. The air defence organisation must be provided with all ATM information relevant to its task.

A good interface between ATM and air defence is paramount for safety and security.

FAB arrangements shall support measures needed to safeguard essential security or defence policy interests as stated in the EC Regulation.³⁴

- 10.2.6.1 **Requirement (ER):** Arrangements between the FAB ANSPs and air defence units shall be described in letters of agreement.
- 10.2.6.2 **Requirement (ER):** FAB ANSPs shall provide, on a timely and continuous basis, national/international air defence units with the ATM data necessary for the execution of air defence tasks.
- 10.2.6.3 **Requirement (ER):** For the purposes of public security, times of crisis and war, uninterrupted data provision necessary for the execution of air defence tasks shall be secured by the development of appropriate contingency plans.

³⁴ Regulation (EC) No 549/2004 of 10 March 2004 (the Framework Regulation), Article 13: Safeguards

- 10.2.6.4 **Requirement (ER):** FAB ANSPs shall organise direct coordination between appropriate civil and military ATS and air defence units to ensure flight safety and the uninterrupted provision of services.
- 10.2.6.5 **Requirement (ER):** The FAB agreement between ANSPs shall ensure that coordination procedures based on direct communication are established between civil and air defence units if they are providing services in the same airspace.
- 10.2.6.6 **Requirement (ER):** The FAB agreement between ANSPs shall ensure that information and coordination procedures are transparent for national air defence units, independently of the dynamic reshaping of the sectors and control agencies.

10.3 Specific Military Operational and Training Requirements

In order to carry out its operational tasks, military aviation seeks:

- freedom to operate at any time in all airspace;
- special handling not only for priority flights and time-critical and crisis missions but also for military aircraft which are not fully equipped to the civil standard;
- to retain the possibility of operating uncontrolled VFR flights;
- temporarily segregated or temporarily reserved airspace for activities which are incompatible with GAT.

OAT rules and associated handling procedures should be harmonised.

- 10.3.1.1 **Requirement (ER):** Member States shall recognise the prerogatives of sovereignty and security operations.
- 10.3.1.2 **Requirement (ER):** Member States shall accommodate agreed cross-border operations within the scope of international agreements.
- 10.3.1.3 **Requirement (ER):** Priority and unrestricted airspace access for air defence flights conducting air policing missions shall be ensured within national airspace or airspace agreed on between States.
- 10.3.1.4 **Requirement (ER):** Special priority handling procedures shall be put in place for security flights and time-critical missions.
- 10.3.1.5 **Requirement (ER):** Procedures shall be put in place to ensure priority to military operations and training when provided for in the State agreement.
- 10.3.1.6 **Requirement (ER):** Special handling of State aircraft shall be provided by FAB ANSPs in line with State designation requirements.
- 10.3.1.7 **Requirement (ER):** No equipage shall be enforced on State aircraft if this endangers the operational ability of aircraft.
- 10.3.1.8 **Requirement (ER):** Travelling time to and from areas used by the military, taking into account various types of aircraft, shall be reduced to a minimum to ensure economic and efficient training.
- 10.3.1.9 **Requirement (OR):** States in the FAB should support the development of a pan-European OAT-IFR transit service.
- 10.3.1.10 **Requirement (OR):** Civil or military service providers should provide an equal level of services to OAT.
- 10.3.1.11 **Requirement (OR):** States in the FAB should harmonise OAT rules to the largest possible extent.

10.4 Performance Requirements

In order “to improve the performance of air navigation services and network functions in the single European sky, a performance scheme for air navigation services and network functions”

has been set up.³⁵ Consequently, the European Commission (EC) has adopted a performance scheme imposing rules for air navigation services and network functions.

The EC has adopted Community-wide performance targets in the key performance areas of safety, the environment, capacity and cost-efficiency. The performance scheme³⁶ shall include national plans or plans for functional airspace blocks including performance targets, ensuring consistency with the Community-wide performance targets. The EC shall perform periodic reviews for monitoring and benchmarking of the performance of air navigation services and network functions.

(The Member States shall adopt national plans or plans for FABs, including performance targets, ensuring consistency with the Community-wide performance targets.)

“Having due regard to military mission effectiveness, civil-military cooperation and coordination are of utmost importance in order to achieve the performance objectives”. In addition, “The performance scheme should be without prejudice to the provisions of Article 13 of Regulation (EC) No 549/2004 aiming at safeguarding essential security or defence policy interests.”³⁷

The performance plans³⁸ should register the commitment of Member States, for the duration of the reference period, to the achievement of the objectives of the Single European Sky and the balance between the needs of all airspace users and the supply of services provided by air navigation service providers.

The national supervisory authorities shall be responsible for the elaboration, at national or functional airspace block level, of the performance plans, the performance oversight, and the monitoring of performance plans and targets.

For the purposes of target setting, one or a limited number of key performance indicators shall correspond to each key performance area. Key performance indicators should be selected for being specific and measurable and allowing the allocation of responsibility for achieving the performance targets.

The performance plan includes a performance indicator relating to the effective use of the civil-military airspace structure and the civil-military dimension of the performance plan.

The Member States, at national or functional airspace block level, may decide to set up and use additional performance indicators and associated targets. They may for example integrate and describe the civil-military or meteorological dimension of the performance plan. These additional indicators and targets may be accompanied by appropriate incentive schemes decided at national or functional airspace block level.³⁹

Even though military mission effectiveness is not part of the performance scheme, the Member States may include relevant performance indicators and targets within a national or FAB performance plan.

³⁵ Regulation (EC) No 1070/2009 of 21 October 2009 amending Regulations (EC) No 549/2004, (EC) No 550/2004, (EC) No 551/2004 and (EC) No 552/2004

³⁶ Regulation (EC) No 549/2004 of 10 March 2004 (the Framework Regulation), Article 11

³⁷ 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

³⁸ Regulation (EC) No 549/2004 of 10 March 2004 (the Framework Regulation), Article 11

³⁹ Regulation (EC) No 691/2010 (laying down a performance scheme for air navigation services and network functions)

- 10.4.1 Requirement (ER): The military authority shall contribute, through the responsible NSA, to the elaboration of national or FAB performance plans, performance oversight, and the monitoring of performance plans and targets.
- 10.4.2 Requirement (ER): The military authority shall be responsible for performance oversight and the monitoring of military performance targets, as appropriate.
- 10.4.3 Requirement (ER): The Member States shall ensure military participation in the definition of the Community-wide performance targets.
- 10.4.4 Requirement (ER): The performance plan adopted by the Member States shall safeguard essential security or defence policy interests.
- 10.4.5 Requirement (ER): Military-related performance indicators and associated targets shall be consistent with the indicators and targets of the performance plan.
- 10.4.6 Requirement (ER): The civil-military dimension of the performance plan shall describe the performance of FUA application in order to increase capacity with due regard to military mission effectiveness.
- 10.4.7 Requirement (ER): The Member States shall assess and review airspace procedures and the performance of flexible use of airspace operations.
- 10.4.8 Requirement (ER): The Member States shall establish an appropriate civil-military performance measurement system (PMS). This system will facilitate both vertical and horizontal integration of performance measures across the whole spectrum of civil-military cooperation and coordination.
- 10.4.9 Requirement (ER): Civil-military performance measurement shall be transparent and impartial. The stakeholders involved should have unlimited access to the relevant performance data.
- 10.4.10 Requirement (ER): The Member States shall establish mechanisms to archive data on the requests, allocations and actual use of airspace structures for further analysis and planning activities. Those data shall be provided for the purposes of the performance scheme.
- 10.4.11 Requirements (OR): The Member States should establish an appropriate military-military and/or civil-military performance working arrangement with a view to supporting the establishment of a civil-military dimension of a performance plan at FAB level.
- 10.4.12 Requirements (OR): The Member States should agree on and adopt a civil-military performance framework. The framework should be consistent with and contribute to a performance scheme for air navigation services and network functions. It should be within the Performance Framework of the ATM Master Plan. Ultimately, it should contribute to the achievement of the SES performance objectives.
- 10.4.13 Requirements (OR): If deemed appropriate, military authorities should define relevant military focus areas and performance indicators, and set up performance targets consistent with the indicators and targets of the performance plan.
- 10.4.14 Requirements (OR): Military-relevant performance indicators and performance targets should be reflected in the performance plan.
- 10.4.15 Requirements (OR): Military stakeholders should be included in the national or FAB incentive scheme and may be subject to the incentive mechanism.

GLOSSARY

A

AAR	air-to-air refuelling
ACC	area control centre
AIM	aeronautical information management
AIP	aeronautical information publication
AIS	aeronautical information service
AMC	airspace management cell
ANSP	air navigation service provider
AO	aircraft operator
ASM	airspace management
ATC	air traffic control
ATFCM	air traffic flow and capacity management
ATFM	air traffic flow management
ATM	air traffic management
ATS	air traffic services
AUP	airspace use plan

C

CAA	civil aviation authority
CBA	cross-border area
CBO	cross-border operations
CDM	collaborative decision-making
CFMU	Central Flow Management Unit
CNS	communications, navigation and surveillance
CONOPS	concept of operations

D

DCMAC former Directorate of Civil-Military ATM Coordination, now the Civil-Military Aviation Coordination Division, DSS/CM

E

EAD European Aeronautical Information Database

EATCHIP European Air Traffic Control Harmonisation and Implementation Programme

EATMP European Air Traffic Management Programme

EC European Commission

ECAC European Civil Aviation Conference

ESARR EUROCONTROL Safety Regulatory Requirement

F

FAB functional airspace block

FPL flight plan

FUA flexible use of airspace

G

GAT general air traffic

I

ICAO International Civil Aviation Organization

IFR instrument flight rules

K

KPI key performance indicator

O

OAT operational air traffic

OATTS OAT Transit System

OPS operations

P

PC Provisional Council (EUROCONTROL)

PMS performance measurement system

R

RNDSG Route Network Development Sub-Group

RVSM reduced vertical separation minima

S

SES Single European Sky

T

TAA temporary airspace allocation

TRA temporary reserved airspace

TSA temporary segregated area

U

UAS unmanned aircraft system

UAC upper area control centre

UUP updated airspace use plan

W

WOC wing operation centre