



**EUROCONTROL Specification
for the application of the
Flexible Use of Airspace (FUA)**

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Abstract			
This document provides essential elements, details of procedures and requirements applicable for the implementation of Flexible Use of Airspace.			
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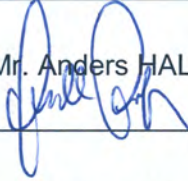
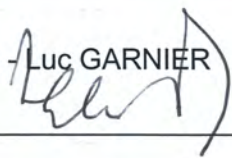
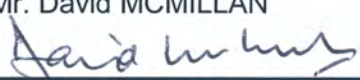
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DOCUMENT APPROVAL

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

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0.2	14/02/08	General amendments	All
0.3	16/05/08	Amendments at formal consultation workshop	All
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0.8	17/06/08	Amendment to the main text	47
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EXECUTIVE SUMMARY

This EUROCONTROL Specification provides details of procedures and requirements for the implementation and application of the Flexible Use of the Airspace Concept developed by EUROCONTROL.

The Specification is also intended to serve as a means of compliance to the essential requirements listed in the European Commission Interoperability Regulation (EC) No 552/2004 of 10 March 2004 and to support implementation and application of the Flexible Use of Airspace Regulation (EC) No 2150/2005 of 23 December 2005 laying down common rules for the flexible use of the airspace.

The FUA Specification not only addresses essential interoperability requirements presumed for systems or constituents, but progressively facilitates implementation matters of operational coordination between civil and military ATM partners. This requires intensive cooperation and consultation processes between the competent civil and military authorities of the Member States and coordination at EUROCONTROL level to enable optimum use of the European airspace.

1 INTRODUCTION

1.1. FOREWORD

1.1.1 Responsible Body

This Specification has been developed in effective coordination at managerial and technical level between the Directorate ATM Programmes Airspace Network Planning and Navigation Unit (DAP/APN) and the Directorate Civil-Military ATM Coordination (DCMAC) of the European Organisation for the Safety of Air Navigation (EUROCONTROL). The DAP/APN Unit is responsible for the maintenance of this Specification.

1.1.2 Approval of the Specification

This Specification is adopted in accordance with the ENPRM process for EUROCONTROL Specifications. The provisions of this Specification become effective after the approval by the Director General of EUROCONTROL.

1.1.3 Technical Corrigenda and Amendments

This Specification is kept under review to ascertain required amendments or technical corrigenda.

Amendments or additions affecting the basic principles shall only be made following the formal review procedure.

Amendments or additions to this Specification shall be proposed in writing to: DAP/APN Secretariat, EUROCONTROL Agency.

1.2. Support and Training

EUROCONTROL member States are supported by EUROCONTROL with respect to any training requirements related to ATM. In addition to specific FUA training courses provided by the EUROCONTROL Institute of Air Navigation Services particular support requirements can be provided through the EUROCONTROL Stakeholder Implementation Service.

1.3. Consultation process

In support of the implementation of the Flexible Use of Airspace (FUA) Regulation ((EC) No 2150/2005) the European Commission requested EUROCONTROL to develop a Community Specification taking into consideration the provisions of the Single European Sky regulations in particular the Interoperability Regulation (EC) No 552/2004.

A draft EUROCONTROL Specification for the Flexible Use of Airspace was therefore developed to address the essential requirements in the Interoperability Regulation and requirements expressed in the FUA Regulation. The EUROCONTROL Specification document will subsequently be submitted to the European Commission for adoption as a Community Specification.

Initial informal consultations with stakeholders were conducted, in the form of a comprehensive questionnaire in summer 2007 and a public workshop on 6th November 2007. Following the workshop a small volunteer focus group, including three stakeholders present at that workshop, met with Agency experts to review the existing draft FUA specification, to provide comments and propose amendments to assist in the process of maturing the draft. This took place on the 09-10 January 2008. This was followed by a formal consultation conducted between 15 February and 30 April 2008 in accordance with the EUROCONTROL Regulatory and Advisory Framework (ERAF). The comments received and the EUROCONTROL reaction to them were further reviewed at a second informal workshop held on 16 May 2008.

1.4. Purpose

This EUROCONTROL Specification provides details of procedures and requirements for the implementation and application of the Flexible use of the Airspace Concept developed by EUROCONTROL. This specification is also intended to serve as a means of compliance to the essential requirements listed in the European Commission Interoperability Regulation (EC) No 552/2004 of 10 March 2004 and to support implementation and application of the Flexible Use of Airspace Regulation (EC) No 2150/2005 of 23 December 2005 laying down common rules for the flexible use of the airspace.

For ease of cross reference, the FUA Regulation Article associated with each specification is highlighted in the document. A matrix showing the relationship between each specification and the associated Article/sub-Article is found at Appendix 1.

1.5. Scope

The scope of this document is to provide specifications for the EUROCONTROL Flexible Use of Airspace concept and, where appropriate, as a means of compliance to the Interoperability Regulation (EC) No 552/2004 and the FUA Regulation (EC) No 2150/2005.

The EUROCONTROL FUA specification draws heavily on existing material primarily contained in the current edition of EUROCONTROL Handbook for Airspace Management.

1.6. Applicability

The following EUROCONTROL Specification shall be applicable to those civil and military entities responsible for air traffic management that operate in the airspace under the responsibility of EUROCONTROL Member States.

1.7. Conventions

This section describes the minimum conventions used in the EUROCONTROL Specification document, which are:

- a) **“Shall”** – indicates a statement of specification, the compliance with which is mandatory to achieve the implementation of the EUROCONTROL Specification.
- b) **“Should”** – indicates a recommendation or best practice, which may or may not be satisfied by all systems claiming conformity to the specification.
- c) **“May”** – indicates an optional element.

1.8. Definitions

The following definitions do not include those contained in other SES Regulations.

	Term	Explanation
1	Ad-hoc Structures	Ad-hoc Structures refer to airspace structures, whether routes or areas, required to meet operational needs at shorter notice than Level 1 process. The establishment of such ad-hoc structure at Level 2 or Level 3 should follow the general design and safety management criteria.
2	Airspace Management	A planning function with the primary objective of maximising the utilisation of available airspace by dynamic time-sharing and, at times, the segregation of airspace among various categories of airspace users on the basis of short-term needs.
3	Airspace Management Cell	A cell responsible for the day-to-day management of the airspace under the responsibility of one or more Member States.
4	Airspace Reservation	A defined volume of airspace temporarily reserved for exclusive or specific use by categories of users.
5	Airspace Restriction	A defined volume of airspace within which, variously, activities dangerous to the flight of aircraft may be conducted at specified times (a 'danger area'); or such airspace situated above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions (a 'restricted area'); or airspace situated above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited (a 'prohibited area').
6	Airspace Structure	A specific volume of airspace designed to ensure the safe and optimal operation of aircraft.
7	Air Traffic Control (ATC) Clearance	An authorization for an aircraft to proceed under the conditions specified by an ATC Unit.
8	Air Traffic Flow Management	A function established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring that ATC capacity is utilised to the maximum extent possible, and that the traffic volume is compatible with the capacities declared by the appropriate air traffic service providers.
9	Civil-military co-ordination	The coordination between civil and military parties authorised to make decisions and agree a course of action.

	Term	Explanation
10	Conditional Route (CDR)	ATS routes that are only available for use and flight planning under specified conditions. A Conditional Route may have more than one category, and those categories may change at specified times: Category 1 Conditional Route (CDR1) CDR1 routes are available for flight planning during times published in the relevant National Aeronautical Information Publication (AIP). Category 2 Conditional Route (CDR2) CDR2 routes may be available for flight planning. Flights may only be planned on a CDR2 in accordance with conditions published daily in the CRAM. Category 3 Conditional Route (CDR3) CDR3 routes are not available for flight planning at all. Flights must not be planned on these routes but ATC Units may issue tactical clearances on such route segments.
11	Conditional Route Availability Message (CRAM)	A special consolidated ASM message issued daily by the CADF to promulgate in one message, on behalf of ECAC States, the AMC decisions on Conditional Routes (CDRs) availability notified by the AUPs for all the ECAC area. The CRAM is used by Aircraft Operators for flight planning purposes.
12	Controlling military unit	Any fixed or mobile military unit handling military air traffic and/or pursuing other activities which, owing to their specific nature, may require an airspace reservation or restriction.
13	Cross Border Area (CBA)	An Airspace restriction or reservation established over international boundaries for specific operational requirements. This may take the form of a Temporary Segregated Area or Temporary Reserved Area
14	Cross border Operations (CBO)	Cross Border / FIR Boundary Operations (CBO) is a process which encompasses activities conducted by one or more than one State, within an area established across international boundaries or entirely within airspace under the jurisdiction of a State.
15	Danger Area	An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.
16	Flexible Use of Airspace (FUA)	An airspace management concept applied in the European Civil Aviation Conference area, as specified in the first edition of 5 February 1996 of the 'Airspace Management Handbook for the application of the Concept of the Flexible Use of Airspace' issued by EUROCONTROL.
17	Flight Intention	The flight path and associated flight data describing the planned trajectory of a flight to its destination, as updated at any moment.

	Term	Explanation
18	Flight Plan	Specified information provided to ATS Units relative to an intended flight or portion of the flight of an aircraft.
19	Flight Path	The path of an aircraft through the air, defined in three dimensions.
20	Interoperability	A set of functional, technical and operational properties required of the systems and constituents of the EATMN and of the procedures for its operation, in order to enable its safe, seamless and efficient operation. Interoperability is achieved by making the systems and constituents compliant with the essential requirements.
21	Procedures	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.
22	Real Time	The actual time during which a process or event occurs.
23	Route Network	A network of specified routes for channelling the flow of general air traffic as necessary for the provision of ATC services.
24	Sector	Part of a control area and/or a flight information region/upper region.
25	Separation	Spacing between aircraft, levels or tracks. This may also include spacing between Airspace Structures
26	System	The aggregation of airborne and ground based constituents, as well as space-based equipment, that provides support for air navigation services for all phases of flight.
27	Users	Civil or military aircraft operating in the air as well as any other parties requiring airspace.
28	Temporary Segregated Area (TSA)	A defined volume of airspace normally under the jurisdiction of one aviation authority and temporarily segregated, by common agreement, for the exclusive use by another aviation authority and through which other traffic will not be allowed to transit. <i>In the context of the FUA Concept, all TSA and TRA are airspace reservations subject to management and allocation at ASM Level 2.</i>
29	Temporary Reserved Area (TRA)	A defined volume of airspace normally under the jurisdiction of one aviation authority and temporarily reserved, by common agreement, for the specific use by another aviation authority and through which other traffic may be allowed to transit, under ATC clearance.

1.9. Abbreviations

Abbreviations used in the Specification:

AA	Approved Agencies
ACA	AUP/UUP Composition Application (software)
ACC	Area Control Centre
AFTN	Aeronautical Fixed Telecommunications Network
AIP	Aeronautical Information Publication
AMC	Airspace Management Cell
AME	ATM Message Exchange
ARN	ATS Route Network
ASM	Airspace Management
ATC	Air Traffic Control
ATFM	Air Traffic Flow Management
ATM	Air Traffic Management (ATS+ASM+ATFM)*
ATS	Air Traffic Services
AUP	Airspace Use Plan
CADF	ECAC Centralised Airspace Data Function
CBA	Cross-Border Area
CBO	Cross-Border Operations
CDR	Conditional Route
CFMU	Central Flow Management Unit
CIAM	CFMU Interface for ASM
CRAM	Conditional Route Availability Message
EATM	European Air Traffic Management
EATMN	European Air Traffic Management Network
ECAC	European Civil Aviation Conference
EUR ANP	ICAO European Air Navigation Plan
FIR	Flight Information Region
FMP	Flow Management Position
FUA	Flexible Use of Airspace
GAT	General Air Traffic
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
LoA	Letter of Agreement
MoC	Means of Compliance
NSA	National Supervisory Authority
OAT	Operational Air Traffic
RCA	Reduced Co-ordination Airspace
SAR	Search and Rescue
SSR	Secondary Surveillance Radar
TRA	Temporary Reserved Area
TSA	Temporary Segregated Area
UTC	Co-ordinated Universal Time
UUP	Updated Airspace Use Plan
VFR	Visual Flight Rules

1.10. Reference Material

In the elaboration of the FUA specification, any relevant reference material was used, and in particular:

- REGULATION (EC) No 551/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 10 March 2004 on the organisation and use of the airspace in the single European sky (the airspace 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);
- COMMISSION REGULATION (EC) No 2150/2005 of 23 December 2005 laying down common rules for the flexible use of airspace;
- ICAO EUR ANP (Volume 1, Basic ANP, Part VI) - Doc 7754;
- ICAO Manual concerning safety measures relating to military activities potentially hazardous to civil aircraft - Doc. 9554;
- ICAO Annex 11;
- ICAO PANS-ATM - Doc. 4444;
- EUROCONTROL FUA Reference Material - Guidance, including:
 - o Report on Organisational Structures for FUA Application;
 - o Guidance Document for FUA Implementation;
 - o Functional Specifications for FUA System Support.
- EUROCONTROL FUA Reference Material - Application, including:
 - o EUROCONTROL Manual for Airspace Planning;
 - o EUROCONTROL Handbook for Airspace Management.
- EUROCONTROL Operational Requirement Document (ORD) for operations and system support to ensure seamless FUA Operations (FUA 2008 Scenario);
- EUROCONTROL Safety Policy for Enhanced FUA Process;
- EUROCONTROL Safety Plan for Enhanced FUA Process.

1.11. Document Structure

NOTE: The framed text in this document is extracted from the European Commission Flexible Use of Airspace Regulation No 2150/2005 of 23 December 2005. Its purpose is to ease transparency and traceability of the document.

The Table of Content can be used as a structure reference for the Specification.

1.10.1 Description

General Requirements

This section consists of high level means of compliance statements of airspace planning principles and criteria at State level, and in respect of the formation and responsibilities of National High level Airspace Policy Body, including those relevant to personnel and technical issues, civil/military system interoperability and dissemination of airspace data.

Strategic Airspace Management Requirements (ASM Level 1)

This section deals with FUA specification and means of compliance at ASM Level 1, with reference to necessary policies and procedures both at State level and those applicable to the

National High level Airspace Policy Body. In addition it addresses airspace management procedures at all three levels and flexible use of airspace over the High Seas.

Pre-tactical Airspace Management requirements (ASM Level 2)

This section addresses ASM level 2 airspace allocation procedures and processes, including the establishment and responsibilities of airspace management cells

Tactical Airspace Management Requirements (ASM Level 3)

This section addresses specifications and means of compliance for real-time civil/military coordination procedures at ASM level 3 together with associated communications and exchange of flight data.

Cross-Border Operations and Co-ordination requirements

This section deals with cross border operations and co-ordination at all three ASM levels including the co-ordination of airspace management policies with neighbouring States, separation standards, criteria for lead, joint or multinational AMC, and common procedures for exchange of data about real-time airspace status.

Safety Requirements

This section addresses compliance with EUROCONTROL ESARRs 3 and 4 together with the need to ensure that relevant staff is adequately qualified and trained.

Security Requirements

This section is included in General Requirements and addresses the security of airspace data exchange.

Performance Requirements (KPA/KPI) – [PERF-REQU-]

This section addresses the joint civil/military processes for periodic assessment of airspace efficiency and effectiveness through the need for definition of key performance areas and indicators. In addition it addresses the need to establish an airspace data repository and associated availability and safeguards.

Every requirement in this Specification is preceded by a cryptic identifier to allow easy reference material. The requirement can be supplemented by numbered paragraphs or by a free text.

EXAMPLE:

Main title	2.	GENERAL REQUIREMENTS – [GEN-]
Sub-title	2.1.	Principles – [-PRPL-]
	2.4.1.	Civil/Military System Interoperability
Requirement	GEN-PRPL-02 -	The National High Level Airspace Policy Body shall ensure the effective implementation and application of the FUA Concept at each level.
Supplements to the requirement	GEN-PRPL-02-01 -	The Strategic Objectives for the National High-Level Airspace Policy Body shall be:
	a)	to maintain and actively seek to improve the safe and effective management of the airspace and its supporting infrastructure;
	b)	to exercise fair and effective regulation of the airspace organisation and management;
	c)	to build confidence and respect between airspace regulators and all other stakeholders through consultation and co-operation;

1.10.2 Appendix 1

Provides traceability between the provisions of the COMMISSION REGULATION (EC) No 2150/2005 of 23 December 2005 laying down common rules for the flexible use of airspace, 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 relevant requirements indicated in this specification document.

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2 GENERAL REQUIREMENTS – [GEN-]

2.1. Principles – [-PRPL-]

Article 3 of Regulation (EC) 2150/2005 (FUA Regulation)

(a) coordination between civil and military authorities shall be organised at the strategic, pre-tactical and tactical levels of airspace management through the establishment of agreements and procedures in order to increase safety and airspace capacity, and to improve the efficiency and flexibility of aircraft operations;

GEN-PRPL-01 - Member States shall establish a National High Level Airspace Policy Body.

GEN-PRPL-01-01 - In those Member States where both civil and military authorities are responsible or involved in airspace management, the National High Level Airspace Policy Body shall be a joint civil-military body.

GEN-PRPL-02 - The National High Level Airspace Policy Body shall ensure a framework for the effective implementation and application of the FUA Concept at each level.

GEN-PRPL-02-01 - The Strategic Objectives for the National High-Level Airspace Policy Body shall be:

- a) to maintain and actively seek to improve the safe and effective management of the airspace and its supporting infrastructure;
- b) to exercise fair and effective regulation of the airspace organisation and management;
- c) to build confidence and respect between airspace regulators and all other stakeholders through consultation and co-operation;
- d) to maintain and improve standards of service through effective planning and monitoring of the high-level body's key processes and activities;
- e) to accommodate shared use of national airspace by all user groups;
- f) to harmonise airspace management procedures with neighbouring States;
- g) to conduct regular monitoring of compliance to the FUA concept at each level.

GEN-PRPL-02-02 - In particular, the National High Level Airspace Policy Body shall:

- a) ensure that a commonly agreed airspace policy be formulated (e.g. a national airspace charter);
- b) ensure agreed priority rules and negotiation procedures for airspace allocation at ASM Level 2 and ASM Level 3 are clearly defined and implemented;
- c) ensure the ongoing (at least yearly) re-assessment of national airspace with regard to effective application of FUA Concept;
- d) ensure the progressive establishment of new flexible airspace structures, where appropriate;
- e) establish framework agreements between civil and military authorities to facilitate the application of the FUA Concept;
- f) ensure the introduction of procedures for the allocation of these airspace structures on a day-by-day basis;
- g) ensure that appropriate national legislation is in place and amended as necessary;
- h) ensure that co-ordination processes between all levels of ASM are established;

- i) ensure that adequate real-time civil/military co-ordination facilities and procedures shall be established;
- j) ensure that civil and military terms and definitions applicable to the principles governing the FUA Concept be harmonised;
- k) ensure that at any one time the total volume of airspace restrictions or reservations are kept to the minimum necessary while ensuring safety and satisfying national operational requirements;
- l) ensure, that a commonly agreed airspace policy for certain portions of airspace of two or more States involved, is formulated;
- m) ensure the regular (at least yearly) re-assessment of the joint airspace of two or more States where appropriate.

Article 3 of Regulation (EC) 2150/2005 (FUA Regulation)

(b) consistency between airspace management, air traffic flow management and air traffic services shall be established and maintained at the three levels of airspace management enumerated in point (a) in order to ensure, for the benefit of all users, efficiency in airspace planning, allocation and use;

GEN-PRPL-03 - The National High-Level Airspace Policy Body shall ensure a framework for effective co-ordination between ATS, ASM and ATFM at the three ASM Levels in collaborative manner, and:

GEN-PRPL-03-01 - Ensure co-ordination agreements defining clear and unambiguous operational procedures at ASM Level 2 and 3.

GEN-PRPL-03-02 - Identify or establish National Airspace Management Cells (AMC) for the daily allocation and promulgation of flexible airspace structures.

Article 3 of Regulation (EC) 2150/2005 (FUA Regulation)

(c) the airspace reservation for exclusive or specific use of categories of users shall be of a temporary nature, applied only during limited periods of time based on actual use and released as soon as the activity having caused its establishment ceases;

GEN-PRPL-04 - The National High-Level Airspace Policy Body shall ensure and monitor that any airspace reservations and restrictions amenable to ASM are of a temporary nature, and:

GEN-PRPL-04-01 – Shall ensure that rules are established for the timely activation and release of reserved airspace, based on actual use.

GEN-PRPL-04-02 – Shall ensure that coordination and interaction procedures are drawn up concerning the release and extended activation of reserved airspace different from the reserved timeframe, where appropriate.

GEN-PRPL-04-03 – Shall ensure that written agreements are drawn up between parties involved.

Article 4.3 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall identify and notify to the Commission those persons or organisations which are responsible for the execution of tasks listed in paragraph 1. The Commission shall maintain and publish a list of all persons or organisations identified in order to further the cooperation between Member States.

GEN-PRPL-05 - The National High-Level Airspace Policy Body shall compile and communicate to EUROCONTROL Agency, or where this specification is used as a means of compliance with EC Regulation 2150/2005 (FUA), to the European Commission, the organisations and focal points responsible for the execution of tasks at Strategic ASM Level 1, and:

GEN-PRPL-05-01 – Shall ensure that this information is updated when important changes occur, or at least in the annual report.

Article 8 of Regulation (EC) 2150/2005 (FUA Regulation)

When reporting annually on the application of the flexible use of airspace as referred to in Article 7(2) of Regulation (EC) No 551/2004, Member States shall provide the elements detailed in the Annex to this Regulation.

Article 9

Member States shall monitor compliance with this Regulation by means of inspections, surveys and safety audits.

GEN-PRPL-06 - Member States shall provide a report annually to EUROCONTROL Agency, and where this specification is used as a means of compliance with EC Regulation 2150/2005 (FUA), to the European Commission information about FUA application, and:

GEN-PRPL-06-01 - shall Identify and require relevant entities to perform inspections, surveys and safety audits on the application of FUA.

Specifically, the annual report shall include:

- a) general description of the national organisation and responsibilities at ASM Level 1, ASM Level 2 and ASM Level 3 of the flexible use of airspace concept;
- b) evaluation of the functioning of agreements, procedures and supporting systems established at the strategic, pre-tactical and tactical levels of airspace management. This evaluation shall be conducted with regard to safety, airspace capacity, efficiency and flexibility of aircraft operations of all users;
- c) problems encountered in the implementation of this Regulation, actions taken and need for changes;
- d) outcome of national inspections, surveys and safety audits;
- e) cooperation between Member States on airspace management and especially on the creation and management of cross-border airspace and cross-border activities.

2.1.1 Recommendations

GEN-PRPL-07 - Member States should establish integrated civil and military airspace management at all three ASM levels.

GEN-PRPL-07-01 - Enhanced processes at strategic, pre-tactical and tactical level should be supported by a consistent airspace data repository providing timely and accurate information on the future, present and past status of airspace. Information to be stored should include the availability of ATS routes, sectors and airspaces thus replacing manual message dissemination mechanisms.

GEN-PRPL-08 - Member States should ensure that the NSA(s) defines its relationship with the National High-Level Airspace Policy Body. This envisages that the NSA(s) may delegate some responsibilities to the National High-Level Airspace Policy Body.

GEN-PRPL-09 - The National High Level Airspace Policy Body should involve civil and military authorities together with national security and defence policy interests in the processes of definition and endorsement of agreements, and:

GEN-PRPL-09-01 – Should ensure nomination of civil and military persons or organisations for each level of ASM.

GEN-PRPL-10 - The National High-Level Airspace Policy Body should ensure the integration of ATS, ASM and ATFM functions at all three ASM levels, and:

GEN-PRPL-10-01 – Should carry out regular assessments and analyses of demand/capacity balance.

GEN-PRPL-10-02 – Should ensure that the annual report is completed in accordance with a common format.

2.2. Personnel – [-PERS-]

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall perform the following tasks:

(g) define the specific conditions under which the responsibility for separation between civil and military flights rests on the air traffic services units or controlling military units;

Article 4.1

Member States shall perform the following tasks:

(k) establish with neighbouring Member States one common set of standards for separation between civil and military flights for cross-border activities;

GEN-PERS-01 - The National High-Level Airspace Policy Body shall ensure that all staff engaged in FUA activities are adequately trained and qualified, and:

GEN-PERS-01-01 – Shall ensure that all operational staff responsible for separation between civil and military flights is properly trained and qualified.

Article 5.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall appoint or establish an airspace management cell to allocate airspace in accordance with the conditions and procedures defined in Article 4.1

In those Member States where both civil and military authorities are responsible for or involved in airspace management, this cell shall take the form of a joint civil military cell.

GEN-PERS-02 - The National High-Level Airspace Policy Body shall ensure that staff of airspace management cells or joint civil and military airspace management cells is adequately trained in the knowledge and operation of the airspace allocation process and use of supporting systems.

Article 6.3 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall ensure the establishment of coordination procedures and the establishment of supporting systems between air traffic service units and controlling military units in order to ensure safety when managing interactions between civil and military flights.

GEN-PERS-03 - The National High-Level Airspace Policy Body shall ensure that staff of air traffic service units and controlling military units is adequately trained in the knowledge and operation of coordination procedures and use of supporting systems.

GEN-PERS-04 - The National High-Level Airspace Policy Body shall ensure compliance with the EUROCONTROL Safety Regulatory Requirements - ATM Services' Personnel (ESARR 5), where appropriate.

Article 7 *of Regulation (EC) 2150/2005 (FUA Regulation)*

Member States shall, in order to maintain or enhance existing safety levels, ensure that, within the context of a safety management process, a safety assessment, including hazard identification, risk assessment and mitigation, is conducted, before they introduce any changes to the operations of the flexible use of airspace.

GEN-PERS-05 - The National High-Level Airspace Policy Body shall ensure that staff involved in FUA operations are adequately trained in the knowledge of operations and compliant with regulation (EC) Reg;2096/2005 Common requirements for the provision of air navigation services

2.2.1 Recommendations

GEN-PERS-06 – Member States should consider the application of relevant provisions of EUROCONTROL Safety Regulatory Requirements - ATM Services' Personnel (ESARR 5) to the personnel engaged in ASM activities at controlling military units.

2.3. Technical – [-TECH-]

2.3.1 Civil/Military System Interoperability

Article 3 of Regulation (EC) 2150/2005 (FUA Regulation)

(b) consistency between airspace management, air traffic flow management and air traffic services shall be established and maintained at the three levels of airspace management enumerated in point (a) in order to ensure, for the benefit of all users, efficiency in airspace planning, allocation and use;

GEN-TECH-01 - The National High-Level Airspace Policy Body shall ensure that civil and military systems are interoperable with respect to supporting the timely sharing of correct and consistent information.

Article 5.3 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall ensure that adequate supporting systems are put in place to enable the airspace management cell to manage airspace allocation and to communicate in good time the airspace availability to all affected users, airspace management cells, air traffic service providers and all relevant partners and organisations.

GEN-TECH-02 - The National High-Level Airspace Policy Body shall ensure that at national level ASM supporting tools and data are available to facilitate airspace planning and allocation.

This should include:

- a) exchange of airspace data and information;
- b) civil/military airspace planning and ATS coordination and booking tool;
- c) link between ASM, ATFM and ATS functions;
- d) Automation of manual tasks.

GEN-TECH-03 - The National High-Level Airspace Policy Body shall ensure that communication means between all participating units at ASM Level 2 and 3 are available to facilitate timely transmission and receipt of airspace management cell decisions.

Article 6.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall ensure the establishment of civil/military coordination procedures and communication facilities between appropriate air traffic service units and controlling military units permitting mutual provision of airspace data to allow the real-time activation, deactivation or reallocation of the airspace allocated at pre-tactical level.

Article 6.2

Member States shall ensure that the relevant controlling military units and air traffic services units exchange any modification of the planned activation of airspace in a timely and effective manner and notify to all affected users the current status of the airspace.

Article 6.3

Member States shall ensure the establishment of coordination procedures and the establishment of supporting systems between air traffic service units and controlling military units in order to ensure safety when managing interactions between civil and military flights.

GEN-TECH-04 - The National High-Level Airspace Policy Body shall ensure that direct and reliable communication facilities between all the units involved are established and operational, ideally by automatic data exchange, but at an absolute minimum by fax, telephone, email or AFTN.

2.3.2 Dissemination of Airspace Data (Status, Timeframe ...)

Article 5.3 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall ensure that adequate supporting systems are put in place to enable the airspace management cell to manage airspace allocation and to communicate in good time the airspace availability to all affected users, airspace management cells, air traffic service providers and all relevant partners and organisations.

Article 6.1

Member States shall ensure the establishment of civil/military coordination procedures and communication facilities between appropriate air traffic service units and controlling military units permitting mutual provision of airspace data to allow the real-time activation, deactivation or reallocation of the airspace allocated at pre-tactical level.

GEN-TECH-05 - The National High-Level Airspace Policy Body shall ensure that common, secure and consolidated information and data exchange between supporting tools and existing data repositories are established, and:

GEN-TECH-05-01 - Shall ensure that all data within the supporting tool and/or data repositories is retained and made available for performance assessment purposes.

2.3.2.1 Recommendations

GEN-TECH-06 - The National High-Level Airspace Policy Body should identify any requirement for, promote the implementation of and monitor the effectiveness of support tools which facilitate the effective implementation of these operational procedures, such as:

- a) exchange of airspace data and information;
- b) airspace planning and booking tool;
- c) link with ASM/ATFM functions;
- d) civil/military coordination tool;
- e) automation of manual tasks;
- f) facilitating national and multinational CDM;
- g) provision of transparent statistic data.

GEN-TECH-07 - The National High-Level Airspace Policy Body should encourage the provision of real-time situation display of status of reserved and restricted airspace and CDRs at all participating units or, where the tools are interoperable the data be provided in a suitable format.

GEN-TECH-08 - The National High-Level Airspace Policy Body should ensure that where an agreement on CBOs is in place, these supporting tools or the relevant ASM data are available at multi-national level.

GEN-TECH-09 - The National High-Level Airspace Policy Body should ensure that supporting systems and monitoring aids are made available to civil and military controllers to provide a common awareness of the traffic situation.

GEN-TECH-10 – Communications should be by automatic data exchange between existing ATC data processing systems. Where this is not possible, at an absolute minimum, should be by fax, telephone, email or AFTN.

2.4. Security Requirements – [-SEC-]

GEN-SEC-01 – The National High-Level Airspace Policy Body shall ensure that common, secure and consolidated airspace data exchange between all the participating units is provided.

GEN-SEC-02 – The National High-Level Airspace Policy Body shall ensure that a mechanism is in place to safeguard the confidentiality of nationally secure or sensitive data.

3 STRATEGIC AIRSPACE MANAGEMENT REQUIREMENTS (ASM LEVEL 1) – [L1-]

3.1. Airspace Planning Principles and Criteria for ASM Level 1 – [-APPC-]

Article 3 of Regulation (EC) 2150/2005 (FUA Regulation)
 (e) *air traffic services units and users shall make the best use of the available airspace.*

L1-APPC-01 - The National High-Level Airspace Policy Body shall ensure the effective sharing of airspace and efficient use of airspace by civil and military users stemming from the application of the FUA Concept is realised through joint civil/military strategic planning and pre-tactical airspace allocation, and:

L1-APPC-01-01 - Shall ensure that written agreements or arrangements are put in place between the competent civil and military units, based on timely data processing for airspace allocation, to enable them to take into account the activation and deactivation of temporary structures.

L1-APPC-01-02 - Shall ensure that efficient operations at ASM Level 3 are put in place including establishment of co-ordination procedures between civil and military ATS Units, and between them and military controlling units to support a process exploiting the airspace capacity in a dynamic manner.

In particular:

- a) written agreements between the competent civil and military authorities shall be in place;
- b) clearly defined and implemented LoAs shall be agreed, containing agreed priority rules and co-ordination procedures for airspace allocation and use at ASM Levels 2 and 3 in place;
- c) airspace re-allocation, where required as close as practical to the time of operations to accommodate short-term changes in traffic situation and/or users requirements shall be enabled.

Article 3 of Regulation (EC) 2150/2005 (FUA Regulation)
 (d) *Member States shall develop cooperation for the efficient and consistent application of the concept of flexible use of airspace across national borders and/or the boundaries of flight information regions, and shall in particular address cross-border activities; this cooperation shall cover all relevant legal, operational and technical issues;*

L1-APPC-02 – Where appropriate Member States shall conclude agreements with neighbouring Member States to enable cross border/FIR boundary operations within agreed areas established across international boundaries or entirely within airspace under the jurisdiction of a State, to include:

- a) the allocation and shared use of common cross border areas (CBAs);
- b) the allocation and shared use of national areas entirely established within the airspace under the jurisdiction of one of the contracting States;
- c) delegation of responsibility for the provision of air traffic services in designated airspace from one to the other contracting State(s), if appropriate.

L1-APPC-03 – Member States shall authorise their competent agencies such as Military Controlling Units, Approved Agencies (AAs), Airspace Management Cells (AMCs) and ATS Units to negotiate and conclude necessary written agreements that could contain specific operational and technical aspects related to pre-tactical and tactical airspace management, and arrangements for the Air Traffic Services provision, if and where applicable, and:

L1-APPC-03-01 – Such agreements shall include all relevant legal, operational and technical issues for co-operation and interaction covering all relevant civil and military issues (e.g. defence, operations, environment and search and rescue), and the following;

- a) determination of the responsibility for the provision of Air Traffic Services;
- b) designation of competent civil and military authorities involved in ASM activities;
- c) determination of responsibility for allocation of the areas concerned based on the principle of delegation of responsibility to a lead, co-located or integrated multinational AMC as appropriate;
- d) Air Defence co-ordination and notification procedures;
- e) priority allocation rules, time based parameters and booking assurance processes;
- f) coordination procedures and interaction rules concerning the activation and release of the cross-border airspace reservation;
- g) services in the area(s) concerned following the principle of delegation of responsibility, where applicable;
- h) contingency procedures;
- i) other operational issues pertinent to cross border/FIR boundary operations as appropriate;
- j) compatibility of communication and flight data exchange systems between civil and military parties, including usage of technical enablers (eg. ASM/ATFM tool).

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall perform the following tasks:

(a) ensure the overall application of the flexible use of airspace concept at a strategic, pre-tactical and tactical level;

L1-APPC-04 – The National High-Level Airspace Policy Body shall ensure the shared use of airspace in respect of all users, and:

L1-APPC-04-01 – Shall ensure the establishment of working structures for ASM Levels 2 and 3, together with the appropriate authority required to carry out the tasks.

L1-APPC-04-02 – Shall ensure the establishment of a joint civil and military process for the effective application of the flexible use of airspace concept at a strategic, pre-tactical and tactical level, to include:

- a) priority rules;
- b) negotiation procedures;
- c) co-ordination procedures
- d) contingency procedures, where appropriate.

L1-APPC-04-03 – Shall conduct regular assessments of their national airspace and ATS-route network in order to monitor the application of FUA. In particular:

- a) shall ensure the establishment of procedures for timely and appropriate real-time activation, deactivation or real-time reallocation of airspace along with resolution of specific airspace problems;

- b) shall ensure that timely data exchange is supported by technical enablers (e.g. ASM/ATFM tool) for airspace allocation closer to the day of operation;
- c) shall ensure that compatible communication and flight data exchange system between civil and military units, including usage of technical enablers (ASM/ATFM tool) are in place;
- d) shall ensure that dynamic airspace management is considered as key enabler to exploit optimum airspace capacity;

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall perform the following tasks:

(b) regularly review users' requirements;

L1-APPC-05 – The National High-Level Airspace Policy Body shall define mechanisms and establish processes to regularly review civil and military airspace requirements, with the aim of reconciling their operational needs.

L1-APPC-06 – The National High-Level Airspace Policy Body shall ensure the consistency between mechanisms and establish processes to regularly review civil and military airspace requirements.

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall perform the following tasks:

(c) approve the activities which require airspace reservation or restriction;

L1-APPC-07 – The National High-Level Airspace Policy Body shall establish policies, define mechanisms and processes to assess and approve activities which require airspace reservations or restrictions, and:

L1-APPC-07-01 – Shall draw up a list of approved civil and military activities requiring airspace reservation or restriction according to the level of hazard for the safety of other airspace users, planned at national and international level.

L1-APPC-07-02 – Shall ensure that the approved activities on the list are related to the minimum needs in terms of space and time and the conditions of execution of such activities.

L1-APPC-07-03 – Shall perform regular revisions of the list of the approved activities and elaboration of new ones.

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall perform the following tasks:

(d) define temporary airspace structures and procedures to offer multiple airspace reservation and route options;

L1-APPC-08 – The National High-Level Airspace Policy Body shall ensure that airspace structures for temporary use by users in response to their specific needs including the possibility for subdividing these airspace structures are defined and established, and:

L1-APPC-08-01 – Shall establish and publish procedures for airspace allocation and use for activities which require airspace reservation or restriction;

L1-APPC-08-02 – Shall ensure these procedures provide for multiple choice of airspace reservations and related route segments taking into account the EATMN effect;

L1-APPC-08-03 – Shall ensure that procedures are in place to promulgate airspace reservations;

L1-APPC-08-04 – Shall make provisions for dynamic airspace management processes, at national ASM Level 2 and 3;

L1-APPC-08-05 – Shall define and establish processes allowing ASM Levels 2 and 3 to create and operationally use additional ad-hoc structures;

L1-APPC-08-06 – Shall establish procedures for airspace allocation and use for activities which require a mobile airspace reservation or restriction, where appropriate.

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall perform the following tasks:

(e) establish criteria and procedures providing for the creation and the use of adjustable lateral and vertical limits of the airspace required for accommodating diverse variations of flight paths and short-term changes of flights;

L1-APPC-09 – The National High-Level Airspace Policy Body shall ensure that the principles for adjusting lateral and vertical limits of airspace structures including the subdividing of airspace reservations into elementary modules on ASM Levels 2 & 3 are defined, and:

L1-APPC-09-01 – Shall define criteria for designing airspace to enable for adjustable lateral and vertical limits of airspace structures, including the subdividing of airspace reservations into elementary modules.

L1-APPC-09-02 – Shall define criteria for adjusting the lateral and vertical dimensions of airspace structures based on subdivided airspace reservations into elementary modules on ASM Levels 2 & 3.

L1-APPC-09-03 – Shall establish procedures for adjusting the lateral and vertical dimensions based on subdivided airspace reservations into elementary modules on ASM Levels 2 & 3.

L1-APPC-10 – The National High-Level Airspace Policy Body shall ensure that additional procedures for the delineation and allocation of airspace and associated dissemination of information with the aim of responding to specific short-notice airspace requirements and/or route optimisation are created.

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall perform the following tasks:

(f) assess the national airspace structures and route network with the aim of planning for flexible airspace structures and procedures;

L1-APPC-11 – The National High-Level Airspace Policy Body shall ensure that processes for periodic assessment and analysis of existing airspace structures and ATS route network based on balanced consideration of civil and military requirements are in place with the aim of planning for flexible airspace structures and procedures.

The assessment processes include:

- a) identification of need;
- b) analysis of the potential impact;
- c) decision to proceed;
- d) consultation;
- e) approval;
- f) publication.

L1-APPC-12 – The National High-Level Airspace Policy Body shall ensure that the assessment policy is subject to ongoing (at least yearly) review, and:

L1-APPC-12-01 – Shall ensure that where this specification is used as a means of compliance with EC Regulation No 2150/2005 (FUA), the outcome of these assessments are contained in the annual report to the European Commission referred to in Article 8 of the EC Regulation No 2150/2005 (FUA) as specified in the annex to the Regulation.

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall perform the following tasks:

(g) define the specific conditions under which the responsibility for separation between civil and military flights rests on the air traffic services units or controlling military units;

L1-APPC-13 – The National High-Level Airspace Policy Body shall define the circumstances when an air traffic services unit or controlling military unit is responsible for separation between civil and military flights, eg. in case of shared portion of airspace, tactical crossing of ATS routes and tactical crossing of temporary reserved/restricted areas, and:

L1-APPC-13-01 – Determine the conditions under which the responsibility for separation between civil and military flights may rest on the air traffic services units or controlling military units.

L1-APPC-13-02 – Define the criteria for determining the responsibility for providing separation between civil and military flights.

L1-APPC-13-03 – Ensure that the conditions and criteria for the responsibility for separation between civil and military flights are contained in written agreements or other appropriate arrangements.

3.1.1 Recommendations

L1-APPC-14 – Member States should take into account the following matters:

- a) airspace design and network implications;
- b) concept of operations;
- c) harmonised OAT/OAT and OAT/GAT procedures;
- d) list of designated units for inclusion in the annual report on FUA application;
- e) collaborative civil-military airspace planning at European level;
- f) harmonised airspace planning processes and procedures with adjacent States, where appropriate;

L1-APPC-15 – The National High-Level Airspace Policy Body should ensure the integration of ASM and ATFM functions at national level, where appropriate, and:

L1-APPC-15-01 – Should carry out review(s), at least yearly, of airspace user's requirements, to include:

- a) military aviation;
- b) other military users;
- c) civil air transport;
- d) general, sporting and aerial work users;
- e) business aviation;
- f) air test-civil and military;
- g) any other airspace users;
- h) national and international organisations representing groups of users.

L1-APPC-15-02 – Should publish processes and mechanisms to review and update user requirements.

L1-APPC-15-03 – Should put procedures in place for the approval of major events and exercises planned at national and international level.

L1-APPC-15-04 – Should make provisions to cope with unexpected time-critical events.

L1-APPC-15-05 – Should conduct periodic assessments and analysis of existing airspace structures and ATS route network with the aim of planning for flexible airspace structures and procedures in close collaboration with neighbouring States in order to provide a continuum and transparency over the borders.

L1-APPC-16 - Should ensure the application of procedural and operational aspects of ASM Level 3 wherever possible;

L1-APPC-17 - Should ensure provision of required information to populate the airspace data repository with a timely update of information on airspace allocation decisions and on actual airspace status as appropriate.

(l) set up consultation mechanisms between the persons or organisations as referred to in paragraph 3 and all relevant partners and organisations to ensure that users' requirements are properly addressed;

L1-ASMP-01-03 – Shall ensure that these mechanisms and processes are consistent with L1-APPC-04.

In those Member States where both civil and military authorities are responsible for or involved in airspace management, the tasks set out in paragraph 1 shall be performed through a joint civil-military process.

- a) the needs of all stakeholders;
- b) national security and defence needs;
- c) environmental issues;
- d) EATMN effect.

3.3. Flexible Use of Airspace over the High Seas – [-FUAH-]

L1-FUAH-01 – The National High-Level Airspace Policy Bodies of States which have responsibility to provide air traffic services over the high seas shall lay down the necessary instructions and guidelines to reflect the status of the airspace co-ordination process over the high seas, and:

L1-FUAH-01-01 – Shall ensure that the AMC of a State which has responsibility to provide air traffic services in airspace over the high seas is the focal point for all airspace requests over that airspace.

L1-FUAH-01-02 – Shall ensure that when a military authority considers that the co-ordination of activities over the high seas is necessary, it is made directly with the AMC of that State which has the responsibility to provide air traffic services in that airspace.

3.3.1 Recommendations

L1-FUAH-02 – The National High-Level Airspace Policy Body should ensure that the overall application of FUA concept is without prejudice to the rights and duties of States under the Chicago convention and its annexes, the Geneva Convention on the High Seas of 29 April 1958 or to the 1982 UN Convention on the Law of the Sea.

L1-FUAH-03 – The National High-Level Airspace Policy Bodies of States which have the responsibility to provide air traffic services over the high seas should ensure that Danger Areas established over the High Seas are to the extent possible of a temporary nature.

L1-FUAH-04 – The National High-Level Airspace Policy Bodies of States which have the responsibility to provide air traffic services over the high seas should ensure that co-ordination is done directly between the military units responsible for the activity and the ATS unit responsible for the provision of air traffic services in the active area.

4 PRE-TACTICAL AIRSPACE MANAGEMENT REQUIREMENTS (ASM LEVEL 2) – [L2-]

4.1. Airspace Allocation Operations at ASM Level 2 – [-AAOP-]

Article 5.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall appoint or establish an airspace management cell to allocate airspace in accordance with the conditions and procedures defined in Article 4.1

In those Member States where both civil and military authorities are responsible for or involved in airspace management, this cell shall take the form of a joint civil military cell.

L2-AAOP-01 – The National High-Level Airspace Policy Body shall:

- a) Appoint a focal point, or establish and authorise airspace management cells, or joint civil and military airspace management cells.
- b) Authorise AMC to conduct airspace allocation and management in a decisive, timely and efficient manner and resolve conflicting airspace requirements.
- c) Ensure that staff is adequately trained in the knowledge and operation of the airspace allocation process and use of supporting systems.
- d) Ensure that AMCs collect and analyse all airspace requests and decide the daily airspace allocation taking into account the user requirements, available capacity and the effect on the network.
- e) Ensure that AMCs are responsible for the conduct of day-to-day Level 2 airspace allocation and management.

L2-AAOP-01-01 – In particular, the airspace management cells:

- a) Shall act as the national and, where appropriate, as international day-to-day focal points for ASM Level 2 coordination;
- b) Shall collect and analyse all Airspace Requests which may require temporary airspace segregation, including airspace allocation decisions taken at ASM Level 1 in respect of major military exercises, air shows etc.;
- c) Shall analyse the CDR availability requests together with the traffic demand, anticipated ATC capacity problems and expected delay information received from the FMP;
- d) Shall resolve conflicting requests for TSA/TRA and CDRs utilising all relevant information;
- e) Shall resolve conflicts between incompatible or conflicting airspace requests by the application of approved priorities, re-negotiation, rescheduling, or segregation;
- f) Shall co-ordinate with adjacent AMC the harmonised availability of “cross-border” CDRs;
- g) Shall respond to any additional request for assistance by the Single Central Unit for Flow Management, the ACC/FMPs and other Approved Agencies or matters arising from major ATS routes inconsistencies or unexpected events;
- h) Shall decide on the allocation of national TSA/TRA and CBAs, after completion of the collation, co-ordination, analysis, negotiation and resolution process;
- i) Shall activate CDR 2 in accordance with established procedures and for a minimum time of two hours (2H), but with no limit when it is the extension of the availability of the same route with CDR 1 status;

- j) Shall decide in accordance with criteria established at Level 1 on the provisional closure of CDRs 1 to be handled in real-time at ASM Level 3 in conjunction with the notification of activity in associated TSA(s)/TRA(s) and/or AMC-Manageable D and R area(s);
- k) Shall promulgate the airspace allocation by transmitting the AUP to adjacent AMCs and to AAs, including ACC/FMPs and to the Single Central Unit for Flow Management/ATM message exchange via the CIAM. The AUP is published in a common format, as soon as possible, and by 1400 hrs UTC Summer or 1500 hrs UTCA Winter, at the latest, to cover the period between 0600 hrs the next day to 0600 hrs the day after (D 0600 hrs to D + 1 0600 hrs);
- l) Shall, after the AUP distribution, provide clarification to the Single Central Unit for Flow Management, if needed, and cross-check the "Draft CRAM" upon reception;
- m) Shall collect and analyse more up-to-date information on the day of operation from AAs concerning the cancellation of TSA/TRA already published in the current AUP;
- n) Shall promulgate on the day of operation, if necessary, UUPs containing additional bookings, deletions of airspace restrictions during the period of validity of the current AUP. A minimum of 1 hour is allowed between the release of the UUP and the commencement of any additional Airspace Structures made available by the UUP;
- o) Shall participate in a post analysis of airspace allocation;
- p) Shall conduct, where authorised, some Level 3 co-ordination tasks.

4.1.1 Recommendations

L2-AAOP-02 – The National High-Level Airspace Policy Body should:

- a) Where appropriate, establish a joint or multi-national AMC;
- b) Ensure the Integration of AMC and ATFM functions at national level.

5 TACTICAL AIRSPACE MANAGEMENT REQUIREMENTS (ASM LEVEL 3) – [L3-]

5.1. Real-time Civil/Military Co-ordination – [-RTCM-]

Article 6.1 of Regulation (EC) 2150/2005 (FUA Regulation)
Member States shall ensure the establishment of civil/military coordination procedures and communication facilities between appropriate air traffic service units and controlling military units permitting mutual provision of airspace data to allow the real-time activation, deactivation or reallocation of the airspace allocated at pre-tactical level.

L3-RTCM-01 – The National High-Level Airspace Policy Body shall:

- a) Ensure the definition, agreement and enforcement of co-ordination procedures between civil and military ATS units and between them and controlling military units, vested with agreements, to facilitate real-time activation, de-activation, re-allocation or modification of the airspace allocated at pre-tactical level.
- b) Ensure that the determination of these coordination procedures and communication facilities takes into account the EATMN effect.

Article 6.2 of Regulation (EC) 2150/2005 (FUA Regulation)
Member States shall ensure that the relevant controlling military units and air traffic services units exchange any modification of the planned activation of airspace in a timely and effective manner and notify to all affected users the current status of the airspace.

L3-RTCM-02 – The National High-Level Airspace Policy Body shall ensure:

- a) That the procedures for timely exchange of any modification of airspace status between all affected civil and military units are properly addressed in written agreements;
- b) That any modifications of planned activation of airspace are notified to users in a timely and effective manner, in order to facilitate safe, efficient and economic operations;
- c) The provision of data at EATMN level subject to National Security requirements.

Article 6.3 of Regulation (EC) 2150/2005 (FUA Regulation)
Member States shall ensure the establishment of coordination procedures and the establishment of supporting systems between air traffic service units and controlling military units in order to ensure safety when managing interactions between civil and military flights.

L3-RTCM-03 – The National High-Level Airspace Policy Body shall ensure that coordination procedures between civil and military ATS/controlling military units are defined and agreed and operated to ensure safety when managing interactions between civil and military flights.

5.1.1 Recommendations

L3-RTCM-04 – The National High-Level Airspace Policy Body should define, agree and enforce co-ordination procedures between the appropriate units to facilitate ad-hoc real-time airspace allocation.

L3-RTCM-05 – The National High-Level Airspace Policy Body should ensure:

- a) That the procedures between civil and military ATS units and between them and controlling military units and the facilities are designed to minimise the negative impact on all airspace users;
- b) Where appropriate, a civil or military presence in respective control facility, where not already co-located.

5.2. Airspace Use at ASM Level 3 – [-ASPU-]

Article 6.4

of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall ensure that coordination procedures are established between civil and military air traffic service units so as to permit direct communication of relevant information to resolve specific traffic situations where civil and military controllers are providing services in the same airspace. This relevant information shall be made available, in particular where it is required for safety reasons, to civil and military controllers and controlling military units through a timely exchange of flight data, including the position and flight intention of the aircraft.

L3-ASPU-01 – The National High-Level Airspace Policy Body shall ensure:

- a) That coordination procedures permitting and enabling direct communication between civil and military air traffic service units to facilitate the safety resolution of specific traffic situations are properly addressed in written agreements;
- b) That the coordination procedures facilitate the availability of relevant information through the timely exchange of flight data, including the position and flight intention of the aircraft;
- c) The application of a commonly agreed radar data format, direct controller to controller voice communication and timely exchange of flight data, ideally through automatic data exchange.

6 CROSS-BORDER OPERATIONS AND CO-ORDINATION REQUIREMENTS

6.1. ASM Level 1 Cross-Border Operations and Co-ordination – [L1-CBO-]

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)
Member States shall perform the following tasks:
(h) develop cross-border airspace use with neighbouring Member States where needed by the traffic flows and users' activities;

L1-CBO-01 – Member States shall establish, where appropriate, processes for joint airspace management policy to facilitate Cross Border/FIR Boundary Operations (CBO), addressing legal and institutional aspects, such as sovereignty, liability, defence, environment, search and rescue and other issues of common interest.

L1-CBO-02 – The National High-Level Airspace Policy Body shall, where appropriate:

- a) Ensure that the operational requirements for Cross-Border/FIR Boundary Operations stemming from the assessment of national airspace structures and ATS route network are defined, to encompass activities conducted by more than one state, within an area established across international boundaries or entirely within the airspace under the jurisdiction of a state;
- b) Ensure that written agreements are concluded to create a framework for cross border and FIR boundary operations, addressing legal and institutional aspects while respecting sovereignty, defence, environment, search and rescue and other issues of common interest;
- c) Ensure that a joint concept of operation for cross border activities are drawn up as appropriate to take into account the European ATM Network (EATMN).

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)
Member States shall perform the following tasks:
(i) coordinate their airspace management policy with those of neighbouring Member States to jointly address use of airspace across national borders and/or the boundaries of flight information regions;

L1-CBO-03 – The National High-Level Airspace Policy Body shall coordinate their airspace management policy with neighbouring States with the objective of harmonising the airspace management and use of airspace in respect of cross border and/or boundaries of flight information regions, and:

L1-CBO-03-01 – Conduct regular joint assessments and reviews of airspace structures and ATS route network, and their use across national borders and/or the boundaries of flight information regions with the States concerned.

*Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)**Member States shall perform the following tasks:**(j) establish and make available airspace structures to users in close cooperation and coordination with neighbouring Member States where the airspace structures concerned have a significant impact on the traffic across national borders and/or the boundaries of flight information regions, with a view to ensuring optimum use of airspace for all users throughout the Community;*

L1-CBO-04 – The National High-Level Airspace Policy Body shall where CBOs are in place, ensure that airspace structures on either side of national borders are coordinated and implemented to provide for the optimum use of the airspace for all users.

L1-CBO-05 – The National High-Level Airspace Policy Body shall within the scope of the framework agreement ensure that competent agencies, AMCs and ATS and military controlling units negotiate and conclude written agreements defining the CBO process. These shall encompass operational and technical aspects and activities conducted by one or more than one State, within an area established across international boundaries or entirely within airspace under the jurisdiction of a State.

*Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)**Member States shall perform the following tasks:**(k) establish with neighbouring Member States one common set of standards for separation between civil and military flights for cross-border activities;*

L1-CBO-06 – The National High-Level Airspace Policy Body shall jointly define and approve one clear and unambiguous set of separation standards and coordination procedures applicable between civil and military flights, and:

L1-CBO-06-01 – Define the process for determining, in the case of shared portion of airspace, tactical crossing of routes or tactical crossing of temporary reserved/restricted areas, the unit responsible for separation between transit flights and the users of the active reserved/restricted area.

6.1.1 Recommendations

L1-CBO-07 – The National High-Level Airspace Policy Body should combine the Cross Border/FIR Boundary Operations (CBO) process with the potential use of Conditional Routes (CDR) established as part of the ATS Route Network (ARN).

L1-CBO-08 – The National High-Level Airspace Policy Body should, ensure the application of ICAO separation standards as a minimum, unless not provided for.

6.2. ASM Level 2 Cross-Border Operations and Co-ordination – [L2-CBO-]

Article 5.2 of Regulation (EC) 2150/2005 (FUA Regulation)
Two or more Member States may establish a joint airspace Management cell.

L2-CBO-01 – The National High-Level Airspace Policy Body shall determine a lead AMC where States' agreements for establishment of CBOs are in force, and:

L2-CBO-01-01 – Shall ensure that lead, joint or multi-national AMC has the responsibility for airspace management on ASM Level 2 on both sides of the international boundary.

L2-CBO-02 – The National High-Level Airspace Policy Body shall ensure that, where a joint or multinational AMC is established, written agreements are concluded covering relevant operational, technical, procedures and personnel issues, and shall take into account the following factors:

- a) Search and Rescue (SAR) responsibility;
- b) ATS procedures and common language;
- c) SSR code allocation;
- d) type of flight (VFR or IFR);
- e) maximum number of participating aircraft;
- f) harmonised coordination procedures and flight plan data exchange;
- g) communications;
- h) Air Defence notification procedures;
- i) common AMC procedures;
- j) planning/scheduling procedures, relationship with AMC(s) concerned;
- k) activation/de-activation procedures, relationship with ACC(s) concerned;
- l) priority rules;
- m) ATS occurrences reporting procedures;
- n) environmental issues.

6.2.1 Recommendations

L2-CBO-03 – The National High-Level Airspace Policy Body should:

- a) Where appropriate, establish a joint or multi-national AMC;
- b) Ensure the Integration of ASM and ATFM functions at national level.

6.3. ASM Level 3 Cross-Border Operations and Co-ordination – [L3-CBO-]

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall perform the following tasks:

(k) establish with neighbouring Member States one common set of standards for separation between civil and military flights for cross-border activities;

Article 6.5

Where cross-border activities take place, Member States shall ensure that a common set of procedures to manage specific traffic situations and to enhance real time airspace management is agreed between civil air traffic services units and military air traffic services units and/or controlling military units which are concerned by those activities.

L3-CBO-01 – The National High-Level Airspace Policy Body shall ensure application of agreed separation standards for spacing between transit flights and the users of the active reserved/restricted area, and:

L3-CBO-01-01 – Shall ensure the application of the agreed standards for spacing between aircraft inside and outside cross border airspace reservation.

L3-CBO-02 – The National High-Level Airspace Policy Body shall ensure that a common set of procedures to exchange information about real time airspace status and its actual use are defined, agreed between ATS units involved, and between them and controlling military units, where cross-border activities take place, and:

L3-CBO-02-01 – Shall ensure that these common procedures address the safe management of specific traffic situations, including:

- a) responsibility and liability;
- b) ATC procedures;
- c) coordination and phraseology;
- d) air defence notification and related control procedures;
- e) other operational issues;
- f) personnel issues including qualifications and training;
- g) technical issues;
- h) contingency plans.

L3-CBO-02-02 – Shall ensure that these common sets of procedures are laid down in written agreements.

L3-CBO-02-03 – Shall ensure real-time activation and de-activation or modification of cross-border airspace.

6.3.1 Recommendations

L3-CBO-03 – The National High-Level Airspace Policy Body should ensure the application of dynamic airspace management in real-time.

7 SAFETY REQUIREMENTS – [SAFE-REQU-]

Article 7 of Regulation (EC) 2150/2005 (FUA Regulation)

Member States shall, in order to maintain or enhance existing safety levels, ensure that, within the context of a safety management process, a safety assessment, including hazard identification, risk assessment and mitigation, is conducted, before they introduce any changes to the operations of the flexible use of airspace.

SAFE-REQU-01 – The National High-Level Airspace Policy Body shall ensure compliance with the EUROCONTROL Safety Regulatory Requirements for safety management systems by Air Navigation Services Providers (ESARR 3) as appropriate.

SAFE-REQU-02 – The National High-Level Airspace Policy Body shall ensure compliance with the EUROCONTROL Safety Regulatory Requirements for risk assessment and mitigation, including hazard identification, in Air Traffic Management (ATM) when introducing and/or planning changes to the ATM System (ESARR 4) as appropriate.

SAFE-REQU-03 – The National High-Level Airspace Policy Body shall ensure that all relevant staff are adequately qualified and trained before any changes to operations are introduced.

7.1. Recommendations

SAFE-REQU-04 – The National High-Level Airspace Policy Body should ensure that consideration of the EATMN effect is included in the safety assessment.

8 PERFORMANCE REQUIREMENTS (KPA/KPI) – [PERF-REQU-]

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)
Member States shall perform the following tasks:
(m) assess and review airspace procedures and performance of flexible use of airspace operations;

PERF-REQU-01 – The National High-Level Airspace Policy Body shall:

- a) Ensure the establishment of joint civil/military processes for the periodic (at least yearly) assessment of airspace efficiency and effectiveness of procedures at all three ASM Levels.
- b) Ensure the application of commonly agreed FUA Key Performance Areas (KPA) and Indicators (KPI) to facilitate the monitoring of ATM performance against civil and military airspace users needs at the network level.
- c) Ensure, where appropriate, the definition and application of complementary FUA Key Performance Areas (KPA) and Indicators (KPI) to monitor ATM performance against civil and military airspace users needs at national level.
- d) Ensure the assessment of FUA effectiveness in terms of the impact on civil and military airspace users, ATM service provision and civil/military co-ordination.
- e) Ensure the use of key performance areas of safety, capacity, cost-effectiveness and environment to measure the efficient and flexible use of airspace procedures and operations.

Article 4.1 of Regulation (EC) 2150/2005 (FUA Regulation)
Member States shall perform the following tasks:
(n) establish mechanisms to archive data on the requests, allocation and actual use of airspace structures for further analysis and planning activities.

PERF-REQU-02 – Member States shall:

- a) Establish an airspace data repository and the associated data formats and procedures;
- b) Ensure that data is made available, for the real time dissemination of actual status of the airspace at national and network level as well as for further analyses and planning activities;

8.1. Recommendations

PERF-REQU-03 – The National High-Level Airspace Policy Body should apply the following key performance areas/indicators, where applicable:

- a) Airspace efficiency (FUA application, adherence to optimum airspace dimensions, utilisation of airspace, efficient booking system).
- b) Mission effectiveness (economic impact of transit, impact of airspace location on training).
- c) Flexibility (training in non-segregated areas, release of airspace, accommodation of short notice civil and military needs).

PERF-REQU-04 – The National High-Level Airspace Policy Body should ensure the establishment of a central airspace data repository at network level to provide a collaborative environment for the storage and dissemination of accurate up-to date airspace data between airspace users, air traffic services providers and other partners in the ATM processes.

PERF-REQU-05 – The National High-Level Airspace Policy Body should ensure that the historical data to be archived in the data repository include:

- a) requests;
- b) allocation;
- c) actual use;
- d) re-allocation;
- e) refusals;
- f) modification - early closure and/or extended opening.

APPENDIX 1 - TRACEABILITY TO REGULATORY PROVISIONS

COMMISSION REGULATION (EC) No 2150/2005 of 23 December 2005 laying down common rules for the flexible use of airspace expands and details the requirements laid down in Art. 7 of REGULATION (EC) No 551/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 10 March 2004 on the organisation and use of the airspace in the Single European Sky (the Airspace Regulation)

EUROCONTROL Specification supports implementation and application of the Flexible Use of Airspace (FUA), and demonstrates how it meets the requirements of EUROCONTROL regulatory material and COMMISSION REGULATION (EC) No 2150/2005 of 23 December 2005 laying down common rules for the flexible use of airspace. Furthermore it provides MoC to 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). The EUROCONTROL Specification shows the traceability to abovementioned regulations.

Column **(a)** shows the convention of the requirement:

“Shall” – indicates a statement of specification, the compliance with which is mandatory to achieve the implementation of the EUROCONTROL Specification.

“Should” – indicates a recommendation or best practice, which may or may not be satisfied by all systems claiming conformity to the specification.

Column **(b)** identifies every numbered paragraph.

Column **(c)** identifies main articles with the requirement index.

Column **(d)** identifies the references of the specific parts of the Specification that provide the MoCs for COMMISSION REGULATION (EC) No 2150/2005 of 23 December 2005 laying down common rules for the flexible use of airspace

Column **(e)** identifies the references of the specific parts of the Specification that provide the MoCs for 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)

a	b	c	d	e
SHALL/ SHOULD	PARA-/ NUMBER	SPECIFICATION	COMMISSION REGULATION (EC) No 2150/2005 OF 23 DECEMBER 2005 LAYING DOWN COMMON RULES FOR THE FLEXIBLE USE OF AIRSPACE	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)
	2.	GENERAL REQUIREMENTS – [GEN-]		ANNEX II ESSENTIAL REQUIREMENTS
	2.1.	PRINCIPLES – [-PRPL-]		
SHALL		GEN-PRPL-01 GEN-PRPL-01-01 GEN-PRPL-02 GEN-PRPL-02-01 GEN-PRPL-02-02	Article 3 (a) coordination between civil and military authorities shall be organised at the strategic, pre-tactical and tactical levels of airspace management through the establishment of agreements and procedures in order to increase safety and airspace capacity, and to improve the efficiency and flexibility of aircraft operations;	Part A: General requirements These are network-wide requirements that are generally applicable to each one of the systems identified in Annex I. 4. Civil-military coordination The EATMN, its systems and their constituents shall support the progressive implementation of civil/military coordination, to the extent necessary for effective airspace and air traffic flow management, and the safe and efficient use of airspace by all users, through the application of the concept of the flexible use of airspace. To achieve these objectives, the EATMN, its systems and their constituents shall support the timely sharing of correct and consistent information covering all phases of flight, between civil and military parties. Account should be taken of national security requirements.
SHALL		GEN-PRPL-03 GEN-PRPL-03-01 GEN-PRPL-03-02	Article 3 (b) consistency between airspace management, air traffic flow management and air traffic services shall be established and maintained at the three levels of airspace management enumerated in point (a) in order to ensure, for the benefit of all users, efficiency in airspace planning, allocation and use;	

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SHALL		GEN-PRPL-04 GEN-PRPL-04-01 GEN-PRPL-04-02 GEN-PRPL-04-03	Article 3 (c) the airspace reservation for exclusive or specific use of categories of users shall be of a temporary nature, applied only during limited periods of time based on actual use and released as soon as the activity having caused its establishment ceases;	
SHALL		GEN-PRPL-05 GEN-PRPL-05-01	Article 4.3 Member States shall identify and notify to the Commission those persons or organisations which are responsible for the execution of tasks listed in paragraph 1. The Commission shall maintain and publish a list of all persons or organisations identified in order to further the cooperation between Member States.	
SHALL		GEN-PRPL-06 GEN-PRPL-06-01	Article 8 When reporting annually on the application of the flexible use of airspace as referred to in Article 7(2) of Regulation (EC) No 551/2004, Member States shall provide the elements detailed in the Annex to this Regulation. Article 9 Member States shall monitor compliance with this Regulation by means of inspections, surveys and safety audits.	
	2.1.1	Recommendations		
SHOULD		GEN-PRPL-07 GEN-PRPL-07-01 GEN-PRPL-08 GEN-PRPL-09 GEN-PRPL-09-01 GEN-PRPL-10 GEN-PRPL-10-01 GEN-PRPL-10-02		
	2.2.	Personnel – [-PERS-]		

a	b	c	d	e
SHALL		GEN-PERS-01 GEN-PERS-01-01	Article 4 1. Member States shall perform the following tasks: (g) define the specific conditions under which the responsibility for separation between civil and military flights rests on the air traffic services units or controlling military units; (k) establish with neighbouring Member States one common set of standards for separation between civil and military flights for cross-border activities;	
SHALL		GEN-PERS-02	Article 5 1. Member States shall appoint or establish an airspace management cell to allocate airspace in accordance with the conditions and procedures defined in Article 4.1. In those Member States where both civil and military authorities are responsible for or involved in airspace management, this cell shall take the form of a joint civil military cell.	
SHALL		GEN-PERS-03 GEN-PERS-04	Article 6 3. Member States shall ensure the establishment of coordination procedures and the establishment of supporting systems between air traffic service units and controlling military units in order to ensure safety when managing interactions between civil and military flights.	
SHALL		GEN-PERS-05	Article 7 Member States shall, in order to maintain or enhance existing safety levels, ensure that, within the context of a safety management process, a safety assessment, including hazard identification, risk assessment and mitigation, is conducted, before they introduce any changes to the operations of the flexible use of airspace.	
	2.2.1	Recommendations		
SHOULD		GEN-PERS-06		
	2.3.	Technical – [-TECH-]		

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	2.3.1	Civil/Military System Interoperability		
SHALL		GEN-TECH-01	Article 3 (b) consistency between airspace management, air traffic flow management and air traffic services shall be established and maintained at the three levels of airspace management enumerated in point (a) in order to ensure, for the benefit of all users, efficiency in airspace planning, allocation and use; (c) the airspace reservation for exclusive or specific use of categories of users shall be of a temporary nature, applied only during limited periods of time based on actual use and released as soon as the activity having caused its establishment ceases;	Part B: Specific requirements These are the requirements that are specific to each one of the systems and that complement or further refine the general requirements. 1. Systems and procedures for airspace management 1.1. Seamless operation Information relating to pre-tactical and tactical aspects of airspace availability shall be provided to all interested parties in a correct and timely way so as to ensure an efficient allocation and use of airspace by all airspace users. This should take into account national security requirements.
SHALL		GEN-TECH-02 GEN-TECH-03	Article 5 3. Member States shall ensure that adequate supporting systems are put in place to enable the airspace management cell to manage airspace allocation and to communicate in good time the airspace availability to all affected users, airspace management cells, air traffic service providers and all relevant partners and organisations.	
SHALL		GEN-TECH-04	Article 6 1. Member States shall ensure the establishment of civil/military coordination procedures and communication facilities between appropriate air traffic service units and controlling military units permitting mutual provision of airspace data to allow the real-time activation, deactivation or reallocation of the airspace allocated at pre-tactical level. 2. Member States shall ensure that the relevant controlling military units and air traffic services units exchange any modification of the planned activation of airspace in a timely and effective manner and notify to all affected users the current status of the airspace.	

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			3. Member States shall ensure the establishment of coordination procedures and the establishment of supporting systems between air traffic service units and controlling military units in order to ensure safety when managing interactions between civil and military flights.	
	2.3.2	Dissemination of Airspace Data (Status, Timeframe ...)		
SHALL		GEN-TECH-05 GEN-TECH-05-01	Article 5 3. Member States shall ensure that adequate supporting systems are put in place to enable the airspace management cell to manage airspace allocation and to communicate in good time the airspace availability to all affected users, airspace management cells, air traffic service providers and all relevant partners and organisations. Article 6 1. Member States shall ensure the establishment of civil/military coordination procedures and communication facilities between appropriate air traffic service units and controlling military units permitting mutual provision of airspace data to allow the real-time activation, deactivation or reallocation of the airspace allocated at pre-tactical level.	Part B: Specific requirements 1. Systems and procedures for airspace management 1.1. Seamless operation Information relating to pre-tactical and tactical aspects of airspace availability shall be provided to all interested parties in a correct and timely way so as to ensure an efficient allocation and use of airspace by all airspace users. This should take into account national security requirements.
	2.3.2.1	Recommendations		
SHOULD		GEN-TECH-06 GEN-TECH-07 GEN-TECH-08 GEN-TECH-09 GEN-TECH-10		
	2.4	Security Requirements – [-SEC-]		
SHALL		GEN-SEC-01 GEN-SEC-02		Part A: General requirements 4. Civil-military coordination

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				The EATMN, its systems and their constituents shall support the progressive implementation of civil/military coordination, to the extent necessary for effective airspace and air traffic flow management, and the safe and efficient use of airspace by all users, through the application of the concept of the flexible use of airspace. To achieve these objectives, the EATMN, its systems and their constituents shall support the timely sharing of correct and consistent information covering all phases of flight, between civil and military parties. Account should be taken of national security requirements. Part B: Specific requirements 1. Systems and procedures for airspace management 1.1. Seamless operation Information relating to pre-tactical and tactical aspects of airspace availability shall be provided to all interested parties in a correct and timely way so as to ensure an efficient allocation and use of airspace by all airspace users. This should take into account national security requirements.
	3	Strategic Airspace Management Requirements (ASM Level 1) – [L1-]		Part A: General requirements 4. Civil-military coordination The EATMN, its systems and their constituents shall support the progressive implementation of civil/military coordination, to the extent necessary for effective airspace and air traffic flow management, and the safe and efficient use of airspace by all users, through the

a	b	c	d	e
				application of the concept of the flexible use of airspace. To achieve these objectives, the EATMN, its systems and their constituents shall support the timely sharing of correct and consistent information covering all phases of flight, between civil and military parties. Account should be taken of national security requirements.
	3.1.	Airspace Planning Principles and Criteria for ASM Level 1 – [-APPC-]		
SHALL		L1-APPC-01 L1-APPC-01-01 L1-APPC-01-02	Article 3 (e) air traffic services units and users shall make the best use of the available airspace.	
SHALL SHALL		L1-APPC-02 L1-APPC-03 L1-APPC-03-01	Article 3 (d) Member States shall develop cooperation for the efficient and consistent application of the concept of flexible use of airspace across national borders and/or the boundaries of flight information regions, and shall in particular address cross-border activities; this cooperation shall cover all relevant legal, operational and technical issues;	
SHALL		L1-APPC-04 L1-APPC-04-01 L1-APPC-04-02 L1-APPC-04-03	Article 4 1. Member States shall perform the following tasks: (a) ensure the overall application of the flexible use of airspace concept at a strategic, pre-tactical and tactical level;	
SHALL		L1-APPC-05 L1-APPC-06	Article 4 1. Member States shall perform the following tasks: (b) regularly review users' requirements;	

a	b	c	d	e
SHALL		L1-APPC-07 L1-APPC-07-01 L1-APPC-07-02 L1-APPC-07-03	Article 4 1. Member States shall perform the following tasks: (c) approve the activities which require airspace reservation or restriction;	
SHALL		L1-APPC-08 L1-APPC-08-01 L1-APPC-08-02 L1-APPC-08-03 L1-APPC-08-04 L1-APPC-08-05 L1-APPC-08-06	Article 4 1. Member States shall perform the following tasks: (d) define temporary airspace structures and procedures to offer multiple airspace reservation and route options;	
SHALL		L1-APPC-09 L1-APPC-09-01 L1-APPC-09-02 L1-APPC-09-03 L1-APPC-10	Article 4 1. Member States shall perform the following tasks: (e) establish criteria and procedures providing for the creation and the use of adjustable lateral and vertical limits of the airspace required for accommodating diverse variations of flight paths and short-term changes of flights;	
SHALL		L1-APPC-11 L1-APPC-12 L1-APPC-12-01	Article 4 1. Member States shall perform the following tasks: (f) assess the national airspace structures and route network with the aim of planning for flexible airspace structures and procedures;	
SHALL		L1-APPC-13 L1-APPC-13-01 L1-APPC-13-02 L1-APPC-13-03	Article 4 1. Member States shall perform the following tasks: (g) define the specific conditions under which the responsibility for separation between civil and military flights rests on the air traffic services units or controlling military units;	
	3.1.1	Recommendations		

a	b	c	d	e
SHOULD		L1-APPC-14 L1-APPC-15 L1-APPC-15-01 L1-APPC-15-02 L1-APPC-15-03 L1-APPC-15-04 L1-APPC-15-05 L1-APPC-16 L1-APPC-17		
	3.2.	Airspace Management Procedures at the 3 Levels – [-ASMP-]		
SHALL		L1-ASMP-01 L1-ASMP-01-01 L1-ASMP-01-02 L1-ASMP-01-03	Article 4 1. Member States shall perform the following tasks: (l) set up consultation mechanisms between the persons or organisations as referred to in paragraph 3 and all relevant partners and organisations to ensure that users' requirements are properly addressed;	
SHALL		L1-ASMP-02 L1-ASMP-02-01 L1-ASMP-02-02 L1-ASMP-02-03	Article 4 2. In those Member States where both civil and military authorities are responsible for or involved in airspace management, the tasks set out in paragraph 1 shall be performed through a joint civil-military process.	
	3.3	Flexible Use of Airspace over the High Seas – [-FUAH-]		
SHALL SHALL		L1-FUAH-01 L1-FUAH-01-01 L1-FUAH-01-02		
	3.3.1	Recommendations		

a	b	c	d	e
SHOULD		L1-FUAH-02 L1-FUAH-03 L1-FUAH-04		
	4	Pre-tactical Airspace Management requirements (ASM Level 2) – [L2-]		Part B: Specific requirements 1. Systems and procedures for airspace management 1.1. Seamless operation Information relating to pre-tactical and tactical aspects of airspace availability shall be provided to all interested parties in a correct and timely way so as to ensure an efficient allocation and use of airspace by all airspace users. This should take into account national security requirements.
	4.1	Airspace Allocation Operations at ASM Level 2 – [-AAOP-]		
SHALL		L2-AAOP-01 L2-AAOP-01-01	Article 5 1. Member States shall appoint or establish an airspace management cell to allocate airspace in accordance with the conditions and procedures defined in Article 4(1). In those Member States where both civil and military authorities are responsible for or involved in airspace management, this cell shall take the form of a joint civil military cell.	
	4.1.1.	Recommendations		
SHOULD		L2-AAOP-02		
	5.	Tactical Airspace Management Requirements (ASM Level 3) – [L3-]		Part B: Specific requirements 1. Systems and procedures for airspace management 1.1. Seamless operation

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				Information relating to pre-tactical and tactical aspects of airspace availability shall be provided to all interested parties in a correct and timely way so as to ensure an efficient allocation and use of airspace by all airspace users. This should take into account national security requirements.
	5.1	Real-time Civil/Military Co-ordination – [-RTCM-]		
SHALL		L3-RTCM-01	Article 6 1. Member States shall ensure the establishment of civil/military coordination procedures and communication facilities between appropriate air traffic service units and controlling military units permitting mutual provision of airspace data to allow the real-time activation, deactivation or reallocation of the airspace allocated at pre-tactical level.	Part A: General requirements 4. Civil-military coordination The EATMN, its systems and their constituents shall support the progressive implementation of civil/military coordination, to the extent necessary for effective airspace and air traffic flow management, and the safe and efficient use of airspace by all users, through the application of the concept of the flexible use of airspace. To achieve these objectives, the EATMN, its systems and their constituents shall support the timely sharing of correct and consistent information covering all phases of flight, between civil and military parties. Account should be taken of national security requirements.
SHALL		L3-RTCM-02	Article 6 2. Member States shall ensure that the relevant controlling military units and air traffic services units exchange any modification of the planned activation of airspace in a timely and effective manner and notify to all affected users the current status of the airspace.	
SHALL		L3-RTCM-03	Article 6 3. Member States shall ensure the establishment of coordination procedures and the establishment of supporting systems between air traffic service units and controlling military units in order to ensure safety when managing interactions between civil and military flights.	
	5.1.1	Recommendations		
SHOULD		L3-RTCM-04 L3-RTCM-05		

a	b	c	d	e
	5.2.	Airspace Use at ASM Level 3 – [-ASPU-]		
SHALL		L3-ASPU-01	Article 6 4. Member States shall ensure that coordination procedures are established between civil and military air traffic service units so as to permit direct communication of relevant information to resolve specific traffic situations where civil and military controllers are providing services in the same airspace. This relevant information shall be made available, in particular where it is required for safety reasons, to civil and military controllers and controlling military units through a timely exchange of flight data, including the position and flight intention of the aircraft.	
	6.	Cross-Border Operations and Co-ordination requirements		Part A: General requirements 4. Civil-military coordination The EATMN, its systems and their constituents shall support the progressive implementation of civil/military coordination, to the extent necessary for effective airspace and air traffic flow management, and the safe and efficient use of airspace by all users, through the application of the concept of the flexible use of airspace. To achieve these objectives, the EATMN, its systems and their constituents shall support the timely sharing of correct and consistent information covering all phases of flight, between civil and military parties. Account should be taken of national security requirements.
	6.1.	ASM Level 1 Cross-Border Operations and Co-ordination – [L1-CBO-]		

a	b	c	d	e
SHALL		L1-CBO-01 L1-CBO-02	Article 4 1. Member States shall perform the following tasks: (h) develop cross-border airspace use with neighbouring Member States where needed by the traffic flows and users' activities;	
SHALL		L1-CBO-03 L1-CBO-03-01	Article 4 1. Member States shall perform the following tasks: (i) coordinate their airspace management policy with those of neighbouring Member States to jointly address use of airspace across national borders and/or the boundaries of flight information regions;	
SHALL		L1-CBO-04 L1-CBO-05	Article 4 1. Member States shall perform the following tasks: (j) establish and make available airspace structures to users in close cooperation and coordination with neighbouring Member States where the airspace structures concerned have a significant impact on the traffic across national borders and/or the boundaries of flight information regions, with a view to ensuring optimum use of airspace for all users throughout the Community;	
SHALL		L1-CBO-06 L1-CBO-06-01	Article 4 1. Member States shall perform the following tasks: (k) establish with neighbouring Member States one common set of standards for separation between civil and military flights for cross-border activities;	
	6.1.1	Recommendations		
SHOULD		L1-CBO-07 L1-CBO-08		
	6.2.	ASM Level 2 Cross-Border Operations and Co-ordination – [L2-CBO-]		

a	b	c	d	e
SHALL		L2-CBO-01 L2-CBO-01-01 L2-CBO-02	Article 5 2. Two or more Member States may establish a joint airspace Management cell.	
	6.2.1	Recommendations		
SHOULD		L2-CBO-03		
	6.3.	ASM Level 3 Cross-Border Operations and Co-ordination – [L3-CBO-]		
SHALL		L3-CBO-01 L3-CBO-01-01 L3-CBO-02 L3-CBO-02-01 L3-CBO-02-02 L3-CBO-02-03	Article 4 1. Member States shall perform the following tasks: (k) establish with neighbouring Member States one common set of standards for separation between civil and military flights for cross-border activities; Article 6 5. Where cross-border activities take place, Member States shall ensure that a common set of procedures to manage specific traffic situations and to enhance real time airspace management is agreed between civil air traffic services units and military air traffic services units and/or controlling military units which are concerned by those activities.	
	6.3.1	Recommendations		
SHOULD		L3-CBO-03		
	7.	Safety Requirements – [SAFE-REQU-]		Part A: General Requirements 3. Safety Systems and operations of the EATMN shall achieve agreed high levels of safety. Agreed safety management and reporting methodologies shall be established to achieve this.

a	b	c	d	e
				In respect of appropriate ground-based systems, or parts thereof, these high levels of safety shall be enhanced by safety nets which shall be subject to agreed common performance characteristics. A harmonised set of safety requirements for the design, implementation, maintenance and operation of systems and their constituents, both for normal and degraded modes of operation, shall be defined with a view to achieving the agreed safety levels, for all phases of flight and for the entire EATMN. Systems shall be designed, built, maintained and operated, using the appropriate and validated procedures, in such a way that the tasks assigned to the control staff are compatible with human capabilities, in both the normal and degraded modes of operation, and are consistent with required safety levels. Systems shall be designed, built, maintained and operated using the appropriate and validated procedures, in such a way as to be free from harmful interference in their normal operational environment.
SHALL		SAFE-REQU-01 SAFE-REQU-02 SAFE-REQU-03	Article 7 Member States shall, in order to maintain or enhance existing safety levels, ensure that, within the context of a safety management process, a safety assessment, including hazard identification, risk assessment and mitigation, is conducted, before they introduce any changes to the operations of the flexible use of airspace.	
	7.1	Recommendations		
SHOULD		SAFE-REQU-04		
	8.	Performance		Part A: General Requirements

a	b	c	d	e
		Requirements (KPA/KPI) – [PERF-REQU-]		1. Seamless operation Air traffic management systems and their constituents shall be designed, built, maintained and operated using the appropriate and validated procedures, in such a way as to ensure the seamless operation of the EATMN at all times and for all phases of flight. Seamless operation can be expressed, in particular, in terms of information sharing, including the relevant operational status information, common understanding of information, comparable processing performances and the associated procedures enabling common operational performances agreed for the whole or parts of the EATMN.
SHALL		PERF-REQU-01	Article 4 1. Member States shall perform the following tasks: (m) assess and review airspace procedures and performance of flexible use of airspace operations;	
SHALL		PERF-REQU-02	Article 4 1. Member States shall perform the following tasks: (n) establish mechanisms to archive data on the requests, allocation and actual use of airspace structures for further analysis and planning activities.	
	8.1	Recommendations		
SHOULD		PERF-REQU-03 PERF-REQU-04 PERF-REQU-05		



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