

# **ASM Operations Manual Procedures for Flexible Use of Airspace**

Approved by

Finnish Transport and Communications Agency and Air Force Command

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## ABBREVIATIONS AND ACRONYMS

**AA** Approved Agency

**AFC** Air Force Command

**AIC** Aeronautical Information Circular

**AIP** Aeronautical Information Publication

**AIRAC** Aeronautical Information Regulation and Control

**AIS** Aeronautical Information Services

**AMC** Airspace Management Cell

**ASM** Airspace Management

**ATS** Air Traffic Services

<b>AUP</b>	Airspace Use Plan
<b>CADF</b>	ECAC Centralized Airspace Data Function
<b>CBA</b>	Cross-Border Area
<b>CBO</b>	Cross-Border Operations
<b>CDM</b>	Collaborative Decision Making
<b>CDR</b>	Conditional Route
<b>CTA</b>	Control Area
<b>CTR</b>	Control Zone
<b>D area</b>	Danger Area
<b>FIR</b>	Flight Information Region
<b>FIZ</b>	Flight Information Zone
<b>FMP</b>	Flow Management Position
<b>FRA</b>	Free Route Airspace
<b>FUA</b>	Flexible Use of Airspace
<b>HLB</b>	High Level Policy Body

**ICAO** International Civil Aviation Organization

**LMT** Local Mean Time

**MTC** Ministry of Transport and Communications

**NOTAM** Notice to Airmen

**NMOC** Network Manager Operations Centre

**P area** Prohibited Area

**PBN** Performance Based Navigation

**PERM** Permanent ATS-route

**R area** Restricted Area

**RMZ** Radio Mandatory Zone

**RNAV** Area Navigation

**RNP** Required Navigation Performance

**TMA** Terminal Control Area

**TMZ** Transponder Mandatory Zone

**TRA** Temporary Reserved Area

**TSA** Temporary Segregated Area

**UAS** Unmanned Aircraft System, Unmanned aircraft and the equipment needed for its remote control.

**UIR** Upper Flight Information Region

**UTA** Upper Control Area

**UTC** Coordinated Universal Time

**UUP** Updated Airspace Use Plan

**QRA** Quick Reaction Alert

## DEFINITIONS

AIP Supplement	An AIP Supplement is a publication used to advise airspace users of temporary changes to information published in the AIP. These changes may be of long duration (3 months and longer), or they may be used to convey information of short duration that contains extensive text and/or graphics.
Approved Agency	An operator that holds specific approval of the Finnish Transport and Communications Agency Traficom or Finnish Military Aviation Authority and has the right to submit advance notifications of the planned use of airspace structures.
Collaborative Decision Making CDM	Concept in which all operators interact efficiently and transparently to improve the efficiency of decision-making through accurate and real-time information sharing.
Cross-Border Area CBA	An area that two or more states are authorised to establish to accommodate military aviation requirements, based on an agreement between the states involved. CBAs extend across the lateral boundaries of one or more FIRs and are available for military training activities conducted by states that are signatory parties to the agreement. CBAs are published as TRAs, observing the procedures for the flexible use of airspace.
Cross Border Operations (CBO)	The right to operate in cross-border training activities to accommodate military aviation requirements, based on an agreement between two or more states. The activities can take place in CBA/TRA/TSA/R and D areas.
ERNIP	European Route Network Improvement Plan
Flow Management Position FMP	Position established in Area Control Centre Helsinki to liaise between air traffic control, aircraft operators, and NMOC in matters related to air traffic flow management.
High Level Policy Body (HLB)	<p>The National Committee for Airspace Management operating under the Ministry of Transport and Communications, whose task is to agree on how the needs of civil and military aviation will be taken into account in airspace management, air traffic management, the provision of air navigation services and flexible use of airspace. The Government appoints the Committee for a term of three years at a time. It consists of representatives of civil and military aviation operators.</p> <p>Further provisions on the duties and composition of the National Committee for Airspace Management may be given by government decree.</p>



<p>Airspace Management level 1: the strategic level</p>	<p>Level 1 of ASM applies to national-level interactions between the Ministry of Transport and Communications and Ministry of Defence, HLB, and actions conducted in accordance with the framework agreement on ASM.</p> <p>Strategic ASM (level 1): Long- and medium-term planning of ASM processes. Strategic ASM may be initiated approximately one year before the commencement of planned activity, and it ends with transition to pre-tactical ASM. Strategic ASM involves the planning of airspace use and procedures, negotiations and agreements, and consultations with interested parties.</p>
<p>Airspace Management level 2: pre-tactical level</p>	<p>Level 2 of ASM involves civil-military coordination and the use of procedures laid down in the ASM Operations Manual.</p> <p>Pre-tactical ASM (level 2): ASM processes that enable transition from planning to the execution phase. Pre-tactical ASM is usually initiated approximately two days before the commencement of planned activity and continued to the execution phase that marks the transition to tactical ASM. Pre-tactical ASM functions are aimed at attaining sufficient readiness for the commencement of activity by communicating AUPs, AIS publications and flight plans, by allocating airspace reservations planned at level 1, and by other applicable means.</p>
<p>Airspace Management level 3: tactical level</p>	<p>Level 3 of ASM involves operational execution and updating of AUP produced at levels 1 and 2 by airspace users and AMC.</p>
<p>Design of airspace structures</p>	<p>The process of ensuring that airspace structures are properly designed, examined and validated before they are put into service and used by aircraft.</p>
<p>Airspace design</p>	<p>A process to ensure the development and implementation of advanced navigation capabilities and technologies, better route networks and related sector divisions, optimized airspace structures and capacity-enhancing air traffic management methods.</p>
<p>International waters</p>	<p>Waters beyond the sovereignty of any coastal state, as contrasted with territorial sea, over which the state has sovereignty.</p>
<p>Prohibited area (P area)</p>	<p>Airspace of defined dimensions, above land areas or territorial waters of a state, within which aviation is prohibited. Prohibited areas can be established by government decree to provide protection of specific assets.</p>

Aerodrome Flight information zone (FIZ)	A zone established at and around an aerodrome where the number of movements does not justify the provision of air traffic control services for controlled airspace.
Control zone (CTR) and terminal control area (TMA)	Control zone is a volume of controlled airspace that extends from the surface to a specified upper limit. CTRs and TMAs are established to enable the functioning of aerodrome ATS units and to protect air traffic operating to and from aerodromes.
QRA flight	Quick Reaction Alert (QRA) flights are transport, reconnaissance, surveillance, identification or interception missions urgently required for the purpose of monitoring and safeguarding territorial integrity, flights or aerial operations related to heightened preparedness, or flights required for providing executive assistance to authorities. Search and rescue flights conducted with Air Force fleet are also regarded as QRA flights. All QRA flights are priority air traffic.
Radio Mandatory Zone (RMZ)	Airspace of defined dimensions wherein the carriage and operation of radio equipment is mandatory.
Restricted area (R area)	Airspace of defined dimensions above land areas or territorial waters of a state, within which aviation is restricted in accordance with certain specified conditions. Restricted areas can be established by government decree to provide protection of specific assets. Procedures for flexible use of airspace are applied to restricted areas to the extent practicable.
Temporary Segregated Area - TSA	Temporary Segregated Areas are for exclusive use by military aviation, Temporary Segregated Areas have pre-defined lateral limits, where operations require the reservation of airspace for use by specified operators for a specified time period. ATC may not clear a flight into a TSA except if that flight is part of the operations of the user group to which the TSA has been allocated or complies with the terms and conditions imposed by that user group.
Temporary Reserved Area - TRA	Volume of airspace with pre-defined lateral limits, where operations require the reservation of airspace for use by specified operators for a specified time period. In controlled airspace, ATC may clear a flight into an active TRA.
Transponder Mandatory Zone (TMZ)	Airspace of defined dimensions wherein the carriage and operation of pressure-altitude reporting transponders is mandatory.

UAS geographical zones	Airspace zone set up by a competent authority, in which unmanned aviation is made easier, restricted or prohibited in order to limit risks pertaining to safety, privacy, personal data protection, safety measures or the environment.
U-space airspace	A UAS geographical zone designated by a Member State, where UAS operations are only allowed to take place with the support of U-space services.
U-space service	A service relying on digital services and automation of functions designed to support safe, secure and efficient access to U-space airspace for a large number of UAS.
Danger area (D area)	<p>Airspace of defined dimensions within which activities dangerous to aircraft, such as unmanned aircraft operations, sailplane operations or other frequent recreational aviation operations may exist at specified times.</p> <p>Danger areas over international waters involve periodical firings by military forces, blasting, or any other type of activity that may jeopardise the safety of aircraft.</p>
Free route airspace (FRA)	Airspace of defined dimensions within which users may freely plan their route between entry and exit points without reference to the ATS route network.

## **1 INTRODUCTION**

The use of airspace and related decision-making are functions inherent to national sovereignty. In Finland, airspace management policy is governed by the National Committee for Airspace Management established by the government. This ASM Operations Manual provides guidance on airspace management and contains the procedures for the flexible use of airspace as referred to in section 107 of the Finnish Aviation Act. Through the practices described in this Manual, the Finnish Transport and Communications Agency (hereinafter Traficom) and the Air Force Command (AFC) aim to ensure the safe, efficient and flexible use of airspace and to guarantee transparency in related functions by accommodating all users' requirements. The responsibility for ASM arrangements and airspace allocation within the Helsinki flight information region (FIR) lies with Traficom.

The use of airspace required for the preservation of the nation's territorial integrity is arranged through a process that takes into account established and agreed priorities.

The day-to-day planning and coordination of airspace use is under the responsibility of a joint civil-military airspace management cell (AMC) in accordance with the provisions of this manual. The AMC is a combined military and civilian agency.

Fintraffic Air Navigation Services Ltd (AMC, ACC, FMP, FPC, ATS units) provides service in accordance with the principles of this operating manual and operates in compliance with its own operating manuals.

Within the European Union (EU), provisions on the Single European Sky are contained in regulations of the European Parliament and of the Council and in implementing regulations based on them.

Commission Regulation (EC) No 2150/2005 on the flexible use of airspace (FUA Regulation) lays down common rules for the management of air traffic within airspace that is under the control of member states' civil and military air traffic services (ATS) units to ensure efficient civil-military coordination. The FUA Regulation states that coordination between civil and military authorities must be organised at the strategic, tactical, and pre-tactical levels (also called levels 1, 2, and 3 of ASM, respectively) using established agreements and procedures. The objective is to enhance safety, augment airspace capacity, and increase the efficiency and flexibility of airspace use.

Commission Implementing Regulation (EU) 2019/123 lays down detailed rules for the implementation of air traffic management (ATM) network functions, which the member states are required to comply with. The detailed rules concern e.g. airspace design and organisation, as well as the optimisation of the European route network. These objectives are implemented through the European Route Network Improvement Plan (ERNIP), which is a scheme developed by the Network Manager (Eurocontrol) in coordination with the operational stakeholders based on a cooperative decision making (CDM) process. It includes the result of operational activities with respect to route network design on short and medium terms in accordance with the guiding principles of the Network Strategy Plan. The common rules allow an optimum use of airspace in the single European sky and ensure that airspace users can operate preferred trajectories, while allowing maximum access to airspaces and air navigation services.

Military operations and military training are not under EU jurisdiction, and regulations governing the Single European Sky do not impose limitations on the rights of the member states to exercise sovereignty over their national airspace. Neither do they affect matters related to the national security and national military requirements of the member states. Although EU legislation covers arrangements for civil aviation only, EU regulations also affect the use of airspace by the Finnish Defence Forces because airspace is not limitless. The member states must take into account the requirements of both civil and military airspace users during any decision-making process. To this end, the regulations presuppose that the needs of civil and military aviation be coordinated at national level.

Airspace requirements of the Finnish Defence Forces stem from established rights and duties as defined in the Act on the Defence Forces, Act on Territorial Surveillance, Aviation Act, Government Decree on Military Aviation, and Emergency Powers Act. The purpose of the ASM procedures described in this Operations Manual is to ensure that the Defence Forces can conduct exercises aimed at maintaining the capabilities needed for the accomplishment of their assigned duties while observing the flexible use of airspace (FUA) concept. The procedures of airspace management are applicable to the national use of airspace within the Helsinki FIR and over adjacent international waters. Provisions do not exist for the restriction of airspace use over international waters by civil or military aircraft of other states. Member states may agree separately on rules governing flights over international waters.

## **2 GENERAL**

### **2.1 Description and purpose of the ASM Operations Manual**

Airspace management is exercised through the application of FUA procedures developed by Eurocontrol, rules and regulations issued by competent aviation authorities, and the procedures and priorities laid down in this manual.

This manual defines:

general principles for airspace management

- areas defined for the needs of different airspace user groups the priority position of the areas in relation to one another
- structure and classification of ATS routes
- principles governing the establishment, promulgation and use of permanent and temporary areas of airspace
- monitoring mechanisms for the use of airspace

This manual defines the working procedures of the AMC at the pre-tactical and tactical levels of ASM, and also at the strategic level to the extent necessary.

The manual is approved, issued, and updated by the competent civil aviation and military authorities.

In order to increase the efficiency of airspace use, the European Commission (EC) has issued Regulation (EU) 2019/317 laying down a performance and charging scheme in the single European sky (Performance and Charging Regulation) and Regulation (EU) No 255/2010 laying down common rules on air traffic flow management (Flow Regulation). These regulations specify additional requirements for improving the efficiency of airspace use, and key performance indicators that the member states should monitor and measure. These indicators are described in section 9; Airspace use monitoring and performance.

## **3 AIRSPACE ORGANISATION**

### **3.1 Introduction**

The Helsinki FIR is divided into permanent blocks of airspace established to serve the needs of various airspace users, and ATS routes that are subject to a separate classification. Airspace is divided into controlled airspace (ICAO airspace classes C and D) and uncontrolled airspace (ICAO airspace class G). As the ATC service closes, the C and D airspaces become G. Airspace limits and boundaries are published in the Finnish Aeronautical Information Publication (AIP Finland). Unless otherwise provided in section 11 of the Aviation Act, Traficom decides on the establishment of and changes to airspace blocks in the part of airspace under Finland's responsibility. Modifications to permanent airspace structures are usually implemented upon the ATS provider's proposal, but changes may also be suggested by other interest groups in accordance with section 6.1. Temporary reserved airspaces (TRA) can be established in accordance with sections 3.10.2 and 7.1.2.

Modifications to permanent airspace structures require an extensive consultation process to ensure that the needs of different groups of airspace users are taken into account. In practice, this means that modifications to permanent airspace structures are implemented on an annual basis as a result of systematic planning to achieve optimum management of the entire airspace. Fintraffic ANS publishes on its website a schedule of forthcoming amendments by an Aeronautical Information Circular (AIC) in accordance with the AIRAC system, including the planned AIP effective dates, publication dates, and dates for submitting raw data to the relevant Aeronautical Information Services (AIS) unit for dissemination. Fintraffic ANS, as a provider of aeronautical information related to airspace structures, ensures, in the context of the design of airspace structures, that the necessary changes are submitted to the AIS unit in accordance with the AIRAC system in order to provide an appropriate aeronautical information service.

### **3.2 FIR**

The Helsinki flight information region (Helsinki FIR) has been defined in the Finnish Aeronautical Information Publication.

The Helsinki FIR is divided into air traffic control sectors. The ATC sectors and ATS units providing service therein are defined in the AIP. FUA principles are applied throughout the Helsinki FIR, including airspace over international waters as described in section 3.2.1.

#### **3.2.1 Airspace over international waters**

Aviation in airspace over international waters must comply with the Chicago Convention and its Annexes. The United Nations Convention on the Law of the Sea (1982) allows unrestricted flights by state aircraft within airspace over international waters.

Air-use limiting airspace structures cannot be established in the airspace over international maritime areas (R area, TSA/TRA area).

### **3.2.2 ATS-delegated areas in the EFIN FIR**

The establishment of ATS delegated areas requires agreements between states, aviation authorities, ATS providers and, if necessary, AMCs. Responsibility for ATS in the KVARKEN (FL95+) area within the EFIN FIR is delegated to the Swedish service provider. Responsibility for ATS in the MANTO (FL65+), HALTI (FL95+) and ENKR TMA (Kirkenes) areas within the ENFIN FIR is delegated to the Norwegian service provider. ATS delegated areas are published in the Aeronautical Information Publication (AIP) Finland, ENR 2.1.

### **3.3 CTA**

Control Areas (CTA) are published in AIP Finland. Changes in CTA activity times can be made with NOTAM without an advance notice time.

### **3.4 TMA and CTR**

Control Zones (CTR) and Terminal Control Areas (TMA) are published in AIP Finland.

### **3.5 FIZ**

Flight Information Zones (FIZ) are published in AIP Finland.

### **3.6 TSA and TRA / Local TRA**

Temporary Segregated Areas (TSA) are established by Government decree and published in Finland's AIP.

Temporary Reserved Areas (TRA) are published in AIP Finland.

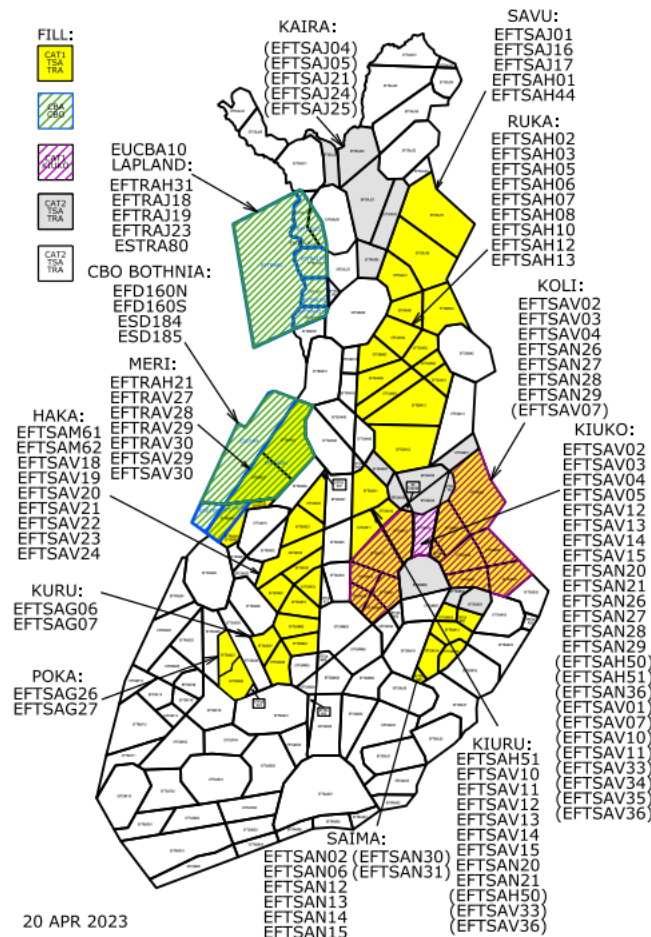
TRAs adjacent to airports (including Local TRA) are established for the purpose of flight operations, and ATS is provided in accordance with the airspace class.

At the tactical level, military authorities may reserve TRAs (including Local TRAs) from the ATS unit. If necessary, the ATS unit is responsible for restricting operations in the TRA if the area is affected by other controlled air traffic. TRAs and Local TRAs reserved by the military authorities can be handled like TSAs. Other controlled air traffic may fly within a TRA reserved by the military authorities in accordance with the principles and procedures stipulated by the military aviation authorities.

When operations in a TSA/TRA reserved by a military authority are suspended, the air traffic control unit may clear controlled traffic in controlled airspace through the TSA/TRA declared active.

TSAs and TRAs reserved for military use are divided into two categories according to their anticipated usage. In addition, there are Cross-Border Areas (CBA).

- Category(yellow):  
TSAs defined as Defence Forces priority areas and TRAs over international waters.
- Category 2 (white and grey):  
TSAs for occasional Defence Forces exercises and TRAs over international waters. Reservation and activation of these areas is managed according to section 7.1.2.
- CBAs (green, CBA 10 Lapland):  
Airspace use priorities are described in Appendix 1 and 2. of the ASM Operations Manual.



### 3.7 Cross Border Operations (CBO)

CBA and Danger areas are established for Cross-Border Operations. The areas are established for the use of military aircraft of two or more states. CBO arrangements allow the use of airspace across national borders and they are established by an intergovernmental treaty and further specified through joint operation agreements.

CBA and Danger areas affect the availability of airspace to other air traffic. These priorities are described in more detail in Appendices 1 and 2 to this document. CBA and Danger areas are published in AIP Finland. Temporary airspace reservations for CBO operations must be planned using the method described in Appendix 4.

### 3.8 Prohibited area – P area

Permanent prohibited areas can be established by government decree in accordance with section 11 of the Aviation Act. Flying in a prohibited area is not allowed, except as provided for in section 1 of the Government Decree.

Traficom may, for specific reasons, grant permission for flying in the prohibited areas of EFP35 Meilahti, EFP40 Munkkiniemi, EFP45 Luonnonmaa or EFP50 Kruunuhaka after consultation with the Office of the President of the Republic of Finland or the Prime Minister's Office, depending on for which entity's protection the area has been established, and in the prohibited areas of EFP10 Loviisa, EFP25 Olkiluoto or EFP30 Kilpilahti after consultation with the Ministry of the Interior. However, flights specifically related to the maintenance, operation and use of the facilities located in the prohibited areas of EFP10 Loviisa, EFP25 Olkiluoto and EFP30 Kilpilahti are allowed.

Permanent prohibited areas are also published in AIP Finland.



### **3.9 Restricted area – R area**

Permanent restricted areas can be established by government decree in accordance with section 11 of the Aviation Act. Aviation is permitted in permanent restricted areas with the permission of the Finnish Transport and Communications Agency or in those permanent restricted areas established for the needs of the Finnish Defence Forces or border control, with the permission of the Defence Forces or under special conditions set by the Defence Forces or the Border Guard.

Temporary restricted areas can be established by Traficom's decision in accordance with section 3.12 below. Any conditions for obtaining permission to fly in the restricted area will be determined in connection with the decision.

When activities hazardous to air traffic have been suspended, ATC may clear a controlled flight in controlled airspace through an activated R area.

Permanent R areas are also published in AIP Finland.

### **3.10 Danger area – D area**

Activities dangerous to aircraft flight safety may be undertaken in D areas, including firings by the Defence Forces in airspace over international waters, extensive sailplane flying, unmanned aircraft operations beyond visual line of sight, distress flares launched above minimum flight altitudes etc.

Aircraft may fly into activated D areas at the discretion of the pilot-in-command, but the pilot must be aware of the risks associated with such operations. Before flying into a danger area, the pilot-in-command shall find out about the nature of operations conducted there to ensure flight safety is not compromised. The confirmed phone number of the operator in the D area and the radio frequency possibly used in the operation are published in the AIP Supplement or NOTAM (Notice to Airmen), which activates the D area. Official operations may be exempt from this requirement.

When operating beyond visual line of sight (BVLOS), an unmanned aircraft does not have to give way to other air traffic in a danger area reserved for its operations, unless otherwise required by a Traficom decision. If there are more than one unmanned aircraft operating in the same area, the parties involved must coordinate their activities.

Uncontrolled airspace:

Before flying into an activated D area, the pilot-in-command should coordinate the flight in advance with the entity operating in the D area.

The activation of a D area does not remove the requirements of a Radio Mandatory Zone (RMZ) in uncontrolled airspace.

ATS airspace:

Before flying into an activated D area directly from uncontrolled airspace, the pilot-in-command should find out whether the D area is active and whether operations are ongoing or suspended. This should be done primarily by contacting the entity operating in the D area or secondarily by contacting the relevant ATS unit by radio.

At the request of the pilot-in-command, separation from danger areas can be waived.

A D area activated in an ATS-airspace is exempt from the services and requirements of the airspace class and airspace section, unless otherwise agreed with the ATS provider.

An exception to this is UAS geographical zones established for the protection of aerodromes, for which the restrictions and conditions remain in force in accordance with Aviation Regulation OPS M1-29 or Traficom's decision except danger areas established for Defence Forces in accordance with Appendix 2, point 19.

When activities hazardous to air traffic have been suspended, ATC may clear a controlled flight in controlled airspace through an activated D area.

D areas are activated in accordance with sections 7.2 and 8.2 below.

### **3.10.1 Permanent danger areas**

Permanent D areas are established by Traficom's Aviation Regulation OPS M1-28 in accordance with section 11 of the Aviation Act.

Permanent D areas are also published in AIP Finland.

### **3.10.2 Temporary danger areas**

Traficom may decide to establish temporary D areas for instance to enable unmanned aircraft operations or for the needs of general and recreational aviation as described in section 7.1.2.

In accordance with section 11c of the Aviation Act, temporary D areas can also be established by the AMC for a maximum period of two weeks under the following principles:

D areas for unmanned aviation for a maximum period of two weeks are established by the AMC under the following conditions:

- The upper limit for the D area to be established does not exceed 150 metres from the surface of the ground or water.
- The D area to be established is not located in a Control Zone (CTR) or a Radio Mandatory Zone (RMZ). The D area to be established is not located in an area where aviation is permanently restricted or in some other area that is essential for national defence as prescribed in section 14 of the Territorial Surveillance Act. This restriction does not apply to an applicant who already has an aerial photography permit for the area in question.
- The D area is established based on the WGS84 coordinate of the centre for the required area and on the radius of the circle. The AMC may also establish a D area based on coordinate points. If the Defence Forces have not granted the applicant a permit for aerial photography in the area, the maximum radius of the area to be established is 12.61 km / 6.81 NM or 500 km<sup>2</sup>.
- When the D area is established, the AMC may specify conditions and restrictions in accordance with section 14 of the Territorial Surveillance Act. For example, the operator may be required to give a real-time notice of activity to the territorial surveillance authorities, or a flight plan may be required for conducting flight operations in the area.
- The size and activity of the D area to be established shall be based on actual usage, and it must be possible to reach the operator at all times when the D area is active.
- The D area to be established need not be verified in the ANS systems.

A proposal for the establishment of a temporary D area must be submitted to the AMC no later than by 12 noon (LMT) one day before the activities are commenced. The D area will be separately activated by issuing a NOTAM and displayed on an electronic chart product.

More detailed instructions for making D-area proposals will be given on Fintraffic ANS's website – [www.fintraffic.fi/en](http://www.fintraffic.fi/en).

If the AMC is not able to reconcile the proposed temporary D area with other airspace and air traffic as provided for in section 159 of the Aviation Act, the matter will be referred to Traficom. In this case, the AMC forwards the proposal to Traficom and presents an alternative proposal for a decision to establish the danger area, if necessary.

The AMC has the right to suspend activities hazardous to aviation within an activated danger area for flight safety reasons or if the smooth flow of air traffic would be disrupted. To ensure this, secure communication procedures shall be established between the D area operator and the AMC.

### **3.11 UAS geographical zones**

#### **3.11.1 Restricting and prohibiting UAS geographical zones**

The Finnish Transport and Communications Agency may, for a compelling reason, establish a UAS geographical zone either by issuing a regulation for a maximum of three years or by adopting a decision on application for a maximum of one year. This UAS geographical zone restricts unmanned aircraft operations or prohibits them above the objects and areas integral to the following operations:

- 1) the running of a state;
- 2) flight safety or safety investigation;
- 3) national defence, territorial surveillance, border security or preparedness;
- 4) police activity, rescue operations, maintaining international relations, administration of justice or healthcare and social welfare;
- 5) protection of an industrial facility or area;
- 6) protection of a port, terminal, railway yard or other equivalent transport hub;
- 7) environmental protection.

The Finnish Transport and Communications Agency must, at the proposal of the Defence Forces, establish a UAS geographical zone restricting or prohibiting unmanned aviation either permanently or temporarily in the airspace above the areas used by the Defence Forces either by issuing a regulation for a maximum of three years or by adopting a decision for a maximum of one year.

The Finnish Transport and Communications Agency's regulation or decision may contain terms, according to which an operation using an unmanned aircraft is permitted in the UAS geographical zone.

The restriction or prohibition of unmanned aviation in a UAS geographical zone does not, however, apply to military, border control, police, customs, maritime or aviation authorities or to authorities in charge of rescue services, first aid or patient transport or operators acting under their command when the performance of the statutory duties of these authorities or related practice operations require operations performed using unmanned aircraft in a UAS geographical zone, unless the regulation or decision specifically prohibits or restricts the operations in question.

If the UAS geographical zone has been established in order to protect an object or area, unmanned aircraft operations done for the benefit of the object or the area are, however, permitted.

The UAS geographical zones and related charts are published on the Traficom website.

### **3.11.2 Permitting UAS geographical zones**

The Finnish Transport and Communications Agency may establish a UAS geographical zone for commercial, recreational, research and experimental operations either by issuing regulation for a maximum of three years or by adopting a decision upon application by an unmanned aircraft operator for a maximum of one year. The Finnish Transport and Communications Agency may establish the zone in question for the use of the operator, for joint operations of several parties or for general use. In this zone, the unmanned aircraft is exempt from one or several requirements set for the category open as laid down in the implementing regulation on unmanned aircraft. The requirement for the establishment of the zone is that flight safety is not compromised.

Before issuing a regulation or decision, the Finnish Transport and Communications Agency must agree on the UAS geographical zone with the Defence Forces. During the agreement procedure, the effects of the UAS geographical zone on the operating conditions of military aviation operations and on the performance of the statutory duties of the Defence Forces are assessed. In addition, the Finnish Transport and Communications Agency must, if necessary, consult the Finnish Border Guard and inform the owners and holders of real estate located under the planned UAS geographical zone and those whose real estate is limited to the real estate located under the relevant airspace zone with the general notification referred to in Section 62 of the Administrative Procedure Act.

The regulation or decision may impose the following on the unmanned aircraft systems and their operators:

- 1) terms pertaining to flight safety or security measures;
- 2) terms to ensure public order and safety;
- 3) terms to ensure the operating conditions of military aviation or the performance of the duties of the Defence Forces;
- 4) terms pertaining to the users of the geographical zone;
- 5) terms pertaining to procedures and systems;
- 6) terms pertaining to the obligation to report to authorities or other parties;
- 7) temporal restrictions or restrictions pertaining to weather conditions;
- 8) internal geographical or height restrictions in addition to the area limits of the zone.

The Finnish Transport and Communications Agency may, by its own initiative and for justifiable reasons or based on the application of the UAS operator, change the terms of the intended regulation or decision, if the conditions in which the regulation or decision was issued have changed relevantly.

The Finnish Transport and Communications Agency may revoke the regulation or decision if:

- 1) the conditions in which it was issued have changed relevantly and it is not possible to continue the operation by changing the terms in accordance with

section 4; or

- 2) the UAS operator repeatedly breaches the provisions of the Aviation Act or the terms of the regulation or decision.

The UAS geographical zones and related charts are published on the Traficom website.

### **3.11.3 U-space airspace**

The Finnish Transport and Communications Agency may, by regulation and for a maximum of three years, establish a U-space airspace where UAS operations are only allowed to take place with the support of U-space services. The regulation issued by the Finnish Transport and Communications Agency may include performance requirements, terms and restrictions that the unmanned aircraft and its operator must meet in order to operate in the airspace in question. Before establishing a U-space airspace, the Finnish Transport and Communications Agency must coordinate with the Finnish Defence Forces and assess the potential impacts that the U-space airspace may have on the operating conditions of military aviation and the performance of the statutory duties of the Finnish Defence Forces.

The requirement of operations only taking place with the support of U-space services and the performance requirements, terms and restrictions concerning the U-space airspace do not apply to military, border control, police, customs, maritime or aviation authorities or to authorities in charge of rescue services, first aid or patient transport (hereinafter 'military and state aviation') or operators acting under their command when the performance of the statutory duties of these authorities or related exercises require operations performed using unmanned aircraft in U-space airspace.

Manned aircraft that operate in airspace designated by the competent authority as a U-space airspace and are not provided with an air traffic control service by the air navigation service provider shall continuously make themselves electronically conspicuous to the U-space service providers. This requirement does not, however, apply to military and state aviation operators in U-space airspace.

Airspaces designated as U-space airspace shall be duly promulgated in the aeronautical information publication (AIP).

### **3.12 Temporary airspace restrictions**

In accordance with section 11 of the Aviation Act, Traficom may restrict or prohibit aviation by decision in a specific area for compelling reasons of flight safety, safety investigation, national defence, territorial surveillance, border security, police operations, rescue operations or the maintenance of public order and safety for a period of no more than four weeks as described in section 7.1.2 of this manual.

An area restricting the use of airspace may be established for a period longer than four weeks provided that the actual restriction of airspace use does not exceed the maximum period of four weeks laid down in the Aviation Act. For example, a temporary exercise area may be established for the Finnish Air Force for a year but the area is actually only activated for four separate periods respecting the maximum period of four weeks.

In case of disruptions of normal operations and under exceptional circumstances, temporary airspace restrictions will be implemented without delay. Exceptions from the procedures in section 7.1.2 are then allowed.

The Airspace Management Cell (AMC) must, in a manner it considers appropriate, restrict or prohibit aviation in a specific area:

1. for a maximum period of seven days at the proposal of rescue, police or military authorities, the Border Guard, Finnish Customs, an aeronautical or maritime rescue coordination centre, the Radiation and Nuclear Safety Authority, a safety investigation authority or an aviation authority when it is necessary for flight safety, safety investigation, national defence, border security, police operations, rescue services or for the maintenance of public order and safety;
2. for a maximum period of 24 hours on its own initiative for exceptional and particularly important reasons related to flight safety or national defence.

The principles of FUA and the rules that apply to permanent areas shall be equally complied with as regards temporary areas.

Temporary airspace restrictions are promulgated primarily as AIP Supplements. In urgent cases, a NOTAM may be issued.

### **3.13 ATS routes**

Finland's ATS route structure is based on RNAV 5 routes established in accordance with ICAO's performance-based navigation (PBN) concept. The ATS routes are divided into categories as described in the subsequent paragraphs.

#### **3.13.1 Permanent ATS routes (PERM)**

A permanent ATS route means an ATS route permanently available for flight planning. A permanent ATS route may be closed off with an Airspace Use Plan or Updated Airspace Use Plan (AUP/UUP) issued by the AMC. Advance notification of activities that may result in the closure of a permanent ATS route will be promulgated by an AIP supplement. Closing off a permanent ATS route requires a decision by Traficom in accordance with section 7.1.2. Permanent ATS routes in the Helsinki FIR are published as RNAV routes in AIP Finland.

#### **3.13.2 Category 1 Conditional Air Traffic Service Routes**

Category 1 conditional (CDR1) ATS routes are permanently available for flight planning during the times the relevant category is in effect.

Suomen ATS-reittiverkosto perustuu ICAO:n PBN-konseptin mukaisiin RNAV 5 -reitteihin. ATS-reittiverkosta käytetään alla kuvatun ATS-reittiluokitusten mukaisesti.

When the Priority Areas in Appendix 1 of the day-to-day operations of the Defence Forces affect CDR1 ATS routes, they shall be closed by an Airspace Use Plan (AUP / UUP) prepared by the AMC unit.

Advance notification of other temporary activities that may affect CDR1 ATS routes will be promulgated by an AIP supplement. Closing off a CDR1 ATS route requires a decision by Traficom in accordance with section 7.1.2. In this case, the route will be closed off with an AUP/UUP issued by the AMC.

CDR1 ATS routes in the Helsinki FIR are published in AIP Finland.

### **3.13.3 Free Route Airspace (FRA)**

Free route airspace (FRA) procedures are available in Finland. Within FRA airspace, users may plan their flights directly between published entry and exit points, with the possibility of routing via intermediate waypoints where necessary. The routings must take account of airspace use restrictions and airspace availability. During FRA operations, the Eurocontrol IFPS system will not accept flight plans with routings that would take the aircraft into an R area, D area or TSA/TRA declared in an AUP or UUP, including adequate protective zones. FRA procedures are published in AIP Finland.

### **3.13.4 Route availability (RAD)**

The Route Availability Document (RAD) is part of the European Route Network Improvement Plan (ERNIP). RAD is a common reference document that contains the policies, procedures and description for route and traffic orientation. It also includes route network and free route

airspace utilisation rules and availability. Fintraffic ANS submits any proposed amendments of RAD to Traficom for approval 3 months prior to the intended date of entry into force. RAD can be found e.g. on the Network Manager's website.

### **3.14 Flight procedures**

Flight procedure design requires a separate approval certificate issued by the Competent Authority.

Flight procedures to be used for civil aviation operations shall be established in accordance with the document ICAO Doc 8168 (PANS-OPS) Volume II 'Construction of Visual and Instrument Flight Procedures', or for RNP AR procedures ICAO Doc 9905 'Required Navigation Performance Authorization Required (RNP AR) Procedure Design Manual' as last amended. If the flight procedure cannot be designed in accordance with the above documents, taking into account the differences published in the Finnish Aviation Publication (AIP), the planned procedure must be submitted to the Finnish Transport and Communications Agency for approval. The application shall explain how the planned flight procedure deviates from the requirements of the ICAO documentation and the rationale for the solution chosen.

The flight procedure design service provider shall consult the relevant air traffic service provider, the aerodrome operator and the military aviation authority when designing or reviewing the flight procedure. This will ensure, inter alia, necessary interaction and coordination between service providers designing different flight procedures. In addition, the air traffic service provider and the aerodrome operator shall, if necessary, carry out appropriate safety assessments prior to the implementation of the flight procedure.

If the introduction of a new flight procedure requires changes to permanent airspace structures, proposals for changes shall be considered in accordance with section 6.1.

The sponsor of a flight procedure may be, for example, an aerodrome operator, an airspace user or an air traffic service provider. In addition to agreeing on the design of the flight procedure, the sponsor shall ensure that:

- the aerodrome has operational instructions and other necessary capabilities for the operational implementation and use of the planned flight procedures;
- for the flight procedures to be published in the AIP, an agreement on the provision and publication of aeronautical information is in place;
- the deployment schedule takes into account the data transmission schedules and AIRAC dates published by the AIS service provider;
- the maintenance and periodic review of the flight procedure has been agreed with

the approved flight procedure design service provider.

- o The persons or organizations responsible for the maintenance of flight procedures must be designated and this designation must be submitted to Traficom for information.
- o With regard to the maintenance of flight procedures, special attention should be paid to assessing and managing the effects of new obstacles.
- o A periodic review of the flight procedure must be carried out at least every five years.



## **4 COORDINATING CIVIL AND MILITARY AVIATION**

The Ministry of Transport and Communications and the Ministry of Defence agree on how the needs of civil and military aviation will be taken into account in airspace and air traffic management, the provision of air navigation services and the flexible use of airspace. Procedures for the flexible use of airspace are included in this ASM Operations Manual.

A High-level Air Space Policy Body (HLB) has been established under the Ministry of Transport and Communications. The Government appoints representatives from civil and military aviation to the HLB for a term of three years at a time. The members of the HLB are the Ministry of Transport and Communications, the Ministry of Defence, the Finnish Military Aviation Authority, the Defence Command, the Air Force Command, Fintraffic ANS, Finavia Corporation, the Finnish Meteorological Institute and Traficom. The HLB may consult specialists and representatives from air navigation service providers, air carriers, military aviation operators and other entities in the field of aviation.

The role of the HLB is to promote the flexible use of airspace and, as an advisory body, address matters related to civil and military coordination and give recommendations as necessary. In addition, the role of the HLB is to participate in preparations of issues related to airspace management within European Union, in international aviation organisations and at national level as well as to address issues related to the Single European Sky and the North European Functional Airspace Block, NEFAB. The task of the HLB is to identify the needs of various airspace users at the strategic level of airspace management, mediate any possible disputes and provide statements in airspace-related matters.

## **5 AMC ORGANISATION**

### **5.1 General**

An airspace management cell (AMC) is co-located with Fintraffic ANS. It is responsible for the implementation of ASM and FUA procedures.

### **5.2 Operators**

Executive authority in an operative AMC is principally held by the AMC manager appointed by Fintraffic ANS, or his/her deputy. Territorial surveillance authorities define the airspace requirements for territorial surveillance tasks. In conflicts concerning airspace use needs within the Defence Forces, the final decision will be made by the military representative at the AMC.

Fintraffic ANS and the Defence Forces shall allocate the AMC adequate personnel to enable it to carry out its assigned tasks.

## 6 ASM FUNCTIONS AT THE STRATEGIC LEVEL

In accordance with the European Route Network Improvement Plan (ERNIP), the strategic level of airspace management deals with long-term plans in airspace management and air traffic management. Traficom has published long-term plans in its NAV / SUR strategy.

To ensure safe and efficient airspace use, the member states are required to publish transparent processes for airspace design arrangements at national level. The national plans must be in line with and support the objectives of ERNIP.

### 6.1 Airspace organisation and planning of airspace use

Airspace organisation means an airspace structure design function that supports and contributes to the ERNIP objectives, taking into account the needs of airspace users, the development of safety levels and the optimisation of airspace capacity. This will be achieved by developing and introducing new advanced functions and techniques, which can be either structural or operational.

Extensive modifications to the airspace structure always require changes to charts. For this reason, it has been decided that extensive modifications will only be carried out once a year at maximum, so that significant costs are not imposed on airspace users for the revision of aeronautical charts.

The process for extensive airspace changes is described in Figure 1. As a case example, the figure depicts the processing of three different types of airspace, since the powers of decision assigned in the Aviation Act are different for these areas.

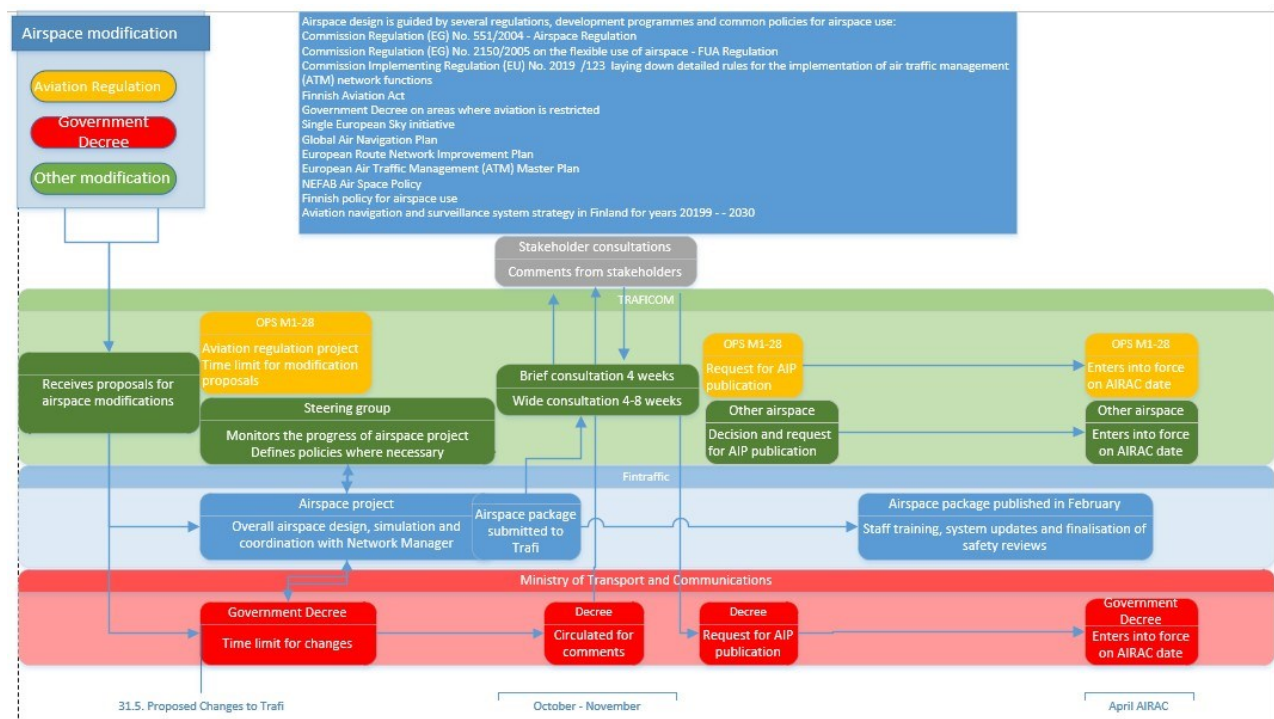


Figure 1

Any proposals for airspace modifications must be sent to Traficom by the 15th of May. All proposals received are collected together for the annual modification process, seeking to coordinate the needs of various user groups and, where necessary, consulting the drafters of the proposals directly about the required changes.

A steering group may be established to support the project group. The steering group is tasked with drafting the general policy and deciding on specific sets of issues.

There is a time limit for submitting proposals for airspace modifications. After the limit, new changes are no longer accepted, but they are deferred to the next year's airspace package.

If the proposed changes are particularly extensive or include new functions, Traficom will arrange information meetings for stakeholders during the project.

## **7 ASM FUNCTIONS AT THE PRE-TACTICAL LEVEL**

The pre-tactical level of airspace management implements the airspace use policy as defined at the strategic level, and the processes described in the ASM Operations Manual.

### **7.1 Airspace use planning**

#### **7.1.1 Annual airspace use planning**

Approved agencies (AA) shall submit an AUP for the next calendar year to Traficom and AMC no later than 31 October. Upon receipt and preview of the AUP, the AMC convenes, no later than 14 November, a coordination meeting with airspace users and civil and military authorities to establish the scope of events and coordination requirements for the next calendar year. Airspace users are required to update the AUP as necessary. However, this requirement will not exempt them from submitting separate bids for airspace use.

#### **7.1.2 Temporary airspace reservations**

Temporary airspace reservations usually require new chart material to be published, or they may significantly affect other air traffic or airspace use priorities. Therefore, they must be published in an AIP Supplement. Bids for airspace reservations must be submitted to Traficom no later than 8 weeks before the commencement of the planned activity. Large-scale exercises and other temporary airspace arrangements that have a significant impact on route traffic are planned using the procedures described in Appendix 4. Normal small-scale temporary airspace reservations are made according to Figure 2 below. Any times mentioned are minimum times.

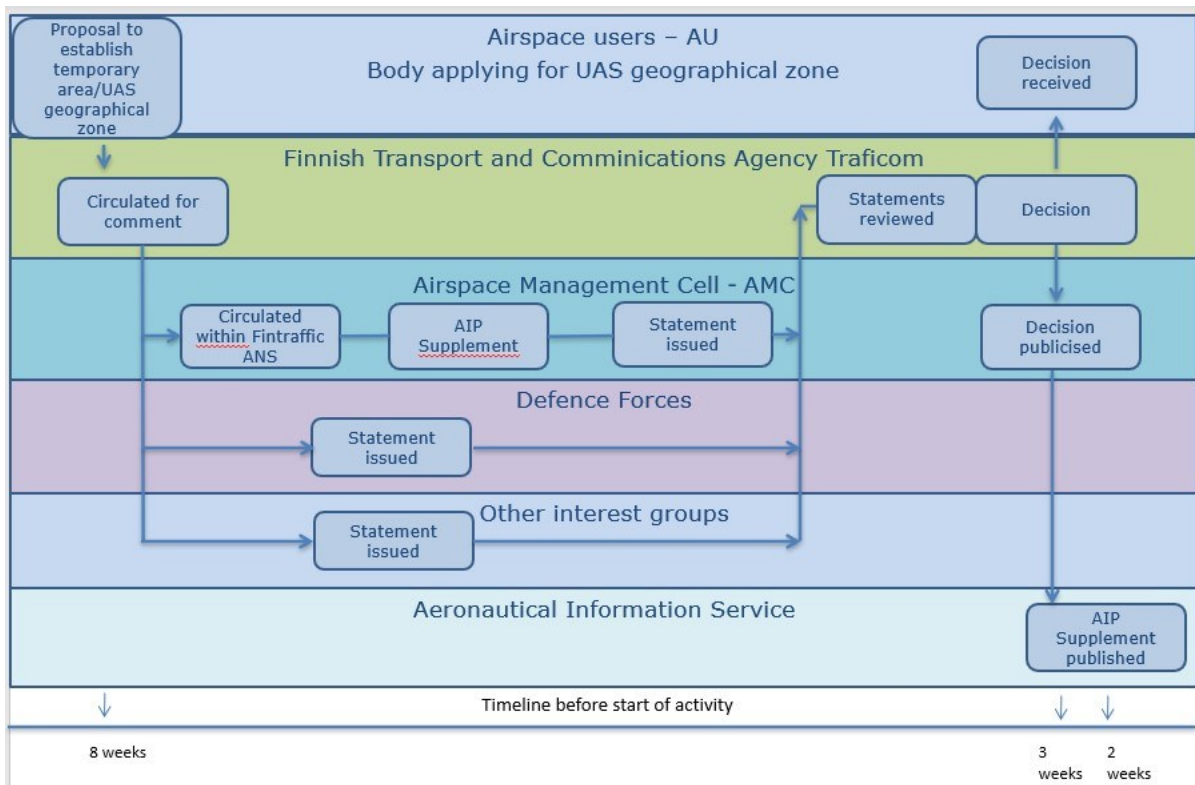


Figure 2

Airspace users may coordinate the submission of a bid with the AMC in advance. Coordination will be based on an advance bid for airspace reservation provided to the AMC, and the coordinated bid must be submitted to Traficom no later than 7 weeks before the planned activities are commenced, as shown in Figure 3 below. Any times mentioned are minimum times.

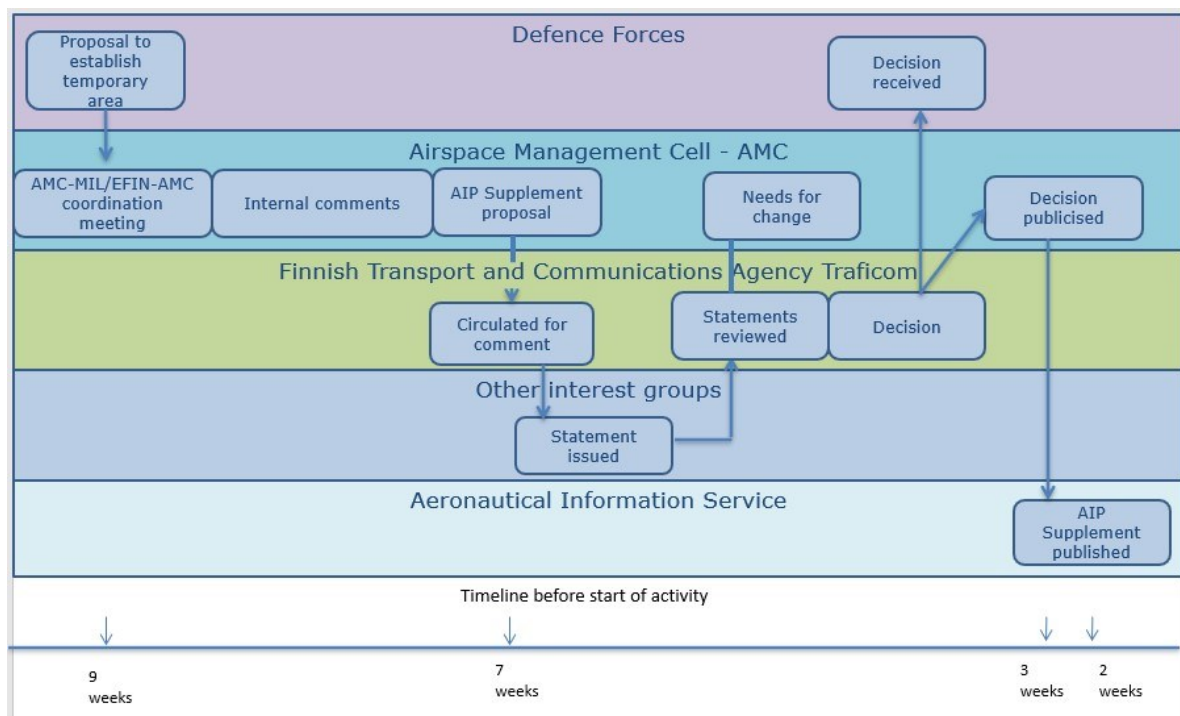


Figure 3

## **7.2 Pre-tactical airspace use planning**

### **7.2.1 General**

At the pre-tactical phase, the AMC implements the use of airspace structures on the basis of advance notifications submitted by airspace users in accordance with established priority arrangements.

An airspace reservation plan prepared on the basis of an advance notification shall be activated separately as explained in section 8.

### **7.2.2 Notification of Defence Force activities**

The AMC shall normally be notified about any planned activity in permanent R areas, permanent D areas over international waters, or temporary D areas or temporary R areas established in accordance with the procedure described in section 7.1.2 by 12:00 LMT at the latest on the day preceding the day of activity, unless otherwise agreed in a separate coordination agreement with the operator or unless another procedure approved by Traficom is in effect. The AMC verifies the details of the notification and prepares a NOTAM proposal that the International NOTAM Office uses to produce a NOTAM for the activation of the area for dissemination.

The following constitute exceptions to the above:

1. Firings conducted during readiness inspections and short-duration Navy firings within permanent R or D areas. Written or oral notifications of these firings will be issued so that they are available to the AMC no less than 4 hours before the commencement of firing. When it is necessary to check the readiness of a military unit or weapon system without prior notification, all actions related to the inspection must be based on a written order issued within the unit and thorough preparation by the inspecting organisation. Firings of this nature do not have priority to airspace use over the air traffic.
2. Urgent executive assistance provided by the Defence Forces and related activities, e.g. the clearing of an explosive in a permanent R or D area. The AMC must be issued a written or oral notification that the area is activated.

The AMC verifies the details of the notification and prepares a NOTAM proposal that the International NOTAM Office uses to produce a NOTAM for the activation of the area for dissemination.

### **7.2.3 Notification of operations in D areas for general aviation**

Approved Agencies (AA) in D areas established for general and recreational aviation may issue advance notifications as described in section 7.2.4. The request for the activation of a D area must be submitted to the AMC electronically or by telephone at least 2 hours before the need to use the D area. These areas may also be activated on the day of operations. The AMC will draw up a NOTAM proposal about the activation, based on which the International NOTAM Office will issue a NOTAM.

As a general rule, a small amount of VFR operations does not require a D area to be activated in uncontrolled airspace (i.e. no busy aviation activities, cloud flying etc.). Start, change and termination of operations must be notified to AMC in accordance with section 8.2.

#### **7.2.4 TSAs, TRAs, R areas and D areas – Approved Agencies (AA)**

Approved Agencies nominated for specified areas are authorised to submit to the AMC advance notifications on TSAs, TRAs, R areas and D areas. Civilian operators wishing to obtain an AA status must submit an application to Traficom, while applications by military operators are to be addressed to the Air Force.

The AMC-MIL handles any overlapping advance notifications from the Defence Forces and coordinates them between the units if necessary. The operative AMC processes and coordinates all advance notifications, attempting to accommodate all airspace users' needs. Notifications shall be submitted to the AMC by 12:00 LMT at the latest on the day preceding the activity, unless the AMC and the operator have agreed otherwise.

#### **7.2.5 TSAs, TRAs, R areas and D areas – other operators**

Operators who do not have an AA status are not authorised to submit advance notifications for TSAs, TRAs, R areas or D areas. Traficom may decide to authorise an operator to submit advance notifications for specific areas.

#### **7.2.6 CADF co-operation and AUP/UUP messages**

The AMC is the point of contact for the CADF (ECAC Centralized Airspace Data Function) unit located within the NMOC.

The AMC is responsible for preparing AUP messages based on advance notifications from airspace users on the use of TSAs, TRAs, R areas and D areas. An AUP shall be prepared and disseminated by 17:00 LMT.

The AMC will also prepare and issue a UUP message when necessary.

### **7.3 Publications**

#### **7.3.1 Airspace restrictions promulgated with AIP Supplements**

The AMC will prepare a draft AIP Supplement concerning the airspace to be affected and associated procedures as described in section 7.1.2. Certain areas may be activated by means of an AIP Supplement alone, without a NOTAM.

#### **7.3.2 Information promulgated by AUP/UUP**

Closures of permanent and CDR Class 1 ATS routes are promulgated daily by AUP/UUP.

The activity of the TSA, TRA, and certain R and D areas with their buffer zones is reported daily on the AUP/UUP and electronic chart product. Area activity will be announced separately if the interval between pre-announced reservations is at least 30 minutes.

### **7.3.3 Information promulgated with NOTAMs**

The AMC will draw up NOTAM proposals for R and D areas to be activated. Based on the proposals, the International NOTAM Office will issue a NOTAM.

## **8 ASM FUNCTIONS AT THE TACTICAL LEVEL**

The tactical level of airspace management implements the Airspace Use Plan (AUP) and Updated Airspace Use Plan (UUP) drafted at the pre-tactical level by activating and deactivating approved airspace reservations. Airspace reservations at the tactical level are of a temporary nature and applied only over limited periods of time. Reservations are based on actual airspace use, and restrictive airspace is deactivated immediately when the activity that caused the restriction is terminated. Any changes to an advance notification shall be submitted immediately to AMC for coordination.

### **8.1 Dynamic airspace management**

AMC functions aim at the dynamic management of airspace. Dynamic ASM refers to the capacity of the AMC to implement the principles of efficient use of airspace as laid down in statutes and defined by the authorities in line with the cooperative decision making (CDM) process, while treating all airspace users equally. The AMC strives to ensure equal opportunities for airspace use by constantly monitoring traffic forecasts and UUP updates. This allows the AMC to also allocate such areas and airspace structures for which an advance notification has not been submitted, provided this would achieve a greater overall benefit with a view to the reserving party's activities and the expediency of traffic flows.

### **8.2 Processing of airspace reservations**

The AMC maintains an updated ASM plan at the tactical level. Airspace users shall notify the AMC of all known changes to the planned activities. Any activated airspace reservations shall be released for subsequent use by the AMC immediately upon the termination of the activity for which the reservation was requested.

#### **8.2.1 Activation of reserved airspace**

A request for starting activities in the activated area (AIP Supplement, NOTAM, AUP/UUP) shall be submitted to the AMC by telephone no earlier than 15 minutes prior to the start of the activities. The AMC and the air traffic provider must aim to ensure that the airspace can be released for use by the operator no later than the planned activation time.

The activities in the activated area may only be started when the AMC has all data pertinent to the reservation, including the contact information of the person in charge of the reservation. The activities may be started with the AMC's permission after the AMC has verified the information supplied by the operator making the reservation and coordinated the start of the activities with affected ATS units. The AMC will notify the operator when the reserved activities can start.

If an ATS unit is unable to grant the starting permit in its requested form due to traffic (or if a request was not submitted in accordance with the principles of advance notification

applicable to the pre-tactical level of ASM), the AMC must coordinate any restrictions to the airspace reservation with the reserving operator. The objective is to lift any restrictions as the traffic situation allows.

### **8.2.2 Changing a reservation**

The AMC strives to approve airspace reservations in their planned form while honouring the priority principles for airspace use and jointly agreed cooperation procedures.

Where the reserved airspace has no priority over other affected airspace structures or users, obtained through the provisions described in section 7.2, the AMC may impose restrictions to an approved reservation either on its own initiative or by request of the service provider when deemed necessary due to traffic. Changes to active airspace reservations will become effective immediately upon the completion of coordination measures. The AMC is required to coordinate any changes with all operators affected by the reservation.

If there is a need to ensure the safety of traffic inside the reserved airspace, which is not involved in the ongoing activity, the appropriate ATS unit may, in some cases, contact the reserving operator directly and impose restrictions on the ongoing activity. The ATS must notify the AMC of such restrictions immediately for the coordination of changes.

### **8.2.3 Cancellation of airspace reservation**

The airspace user must notify the AMC by telephone of the termination of the activities or the cancellation of the airspace reservation when the reservation is no longer required. The reservation is considered cancelled upon the receipt of the user's notification. The AMC will inform affected operators of the resulting change in airspace status.

## **8.3 Changes to planned activities**

Changes in activities subject to coordination at the pre-tactical level of ASM that do not impose additional restrictions to non-exercise traffic are acceptable. However, should a change result in such restrictions, the AMC will consider their approval on a case-by-case basis.

## **8.4 Adjacent and overlapping airspace reservations**

All areas may be allocated adjacent to or overlapping each other.

Overlapping and/or adjacent reservations for Finnish Defence Force activities are coordinated and, if necessary, merged by the military representative at the AMC.

Separation rules between areas are not observed for adjacent and/or overlapping Finnish Defence Forces airspace reservations. Separation rules between aircraft and areas are not observed for military aircraft using adjacent and overlapping airspace reservations.

If one of the parties involved in adjacent or overlapping airspace reservations is a civilian operator, the definitions in accordance with Appendices 1 and 2 are to be noted



in allocating reservations. For air traffic in adjacent and overlapping reservations, the following procedures are observed for separation between areas and air traffic:

R / D area – R / D area / TSA	No separation
R/D area / TSA – TRA	In a TRA reserved by ATC, aircraft are separated in accordance with airspace class and IFR/VFR flight rules. In a TRA reserved by a military unit, no separation is applied to
UAS geographical zone – other airspace	In accordance with Traficom Aviation Regulation OPS M1-29 or decision. For state aviation, permanent procedures or special arrangements can be accepted
Separation from R, D and TSA areas may be waived at the pilot-in-command's request	

Area users are notified of adjacent or overlapping airspace reservations unless the information is considered insignificant.

## 8.5 Airspace reservations without advance notification

At the tactical level of airspace management, airspace reservations, that have not been coordinated in advance in accordance with the principles of the pre-tactical level of airspace management, may also be granted. In this case, however, there may be restrictions on activity, either in terms of area altitude, area boundaries, or activity start and end times. Airspace users may submit bids to the AMC for reservable areas published in the AIP and suitable for the type of activities also without using the advance notification procedure described in section 7. The AMC coordinates the bid and assesses its effects on traffic flows and other airspace structures, and then decides on the use of the area. The AMC has the right to apply the principle of minimising any negative effects and decide not to restrict the use of an area if circumnavigating the area only has a minor impact (maximum increase of 10 NM to the route specified in the flight plan).

## 9 AIRSPACE USE MONITORING AND PERFORMANCE

### 9.1 General

Rules for monitoring the flexible use of airspace are laid down in Commission Regulation (EC) No 2150/2005, Commission Implementing Regulation (EU) 2019/317 and Commission Regulation (EU) No 255/2010. This requires the establishment of mechanisms for the monitoring of bids concerning airspace structures and for recording and filing information on their actual use to facilitate research and planning and to improve performance capabilities.

## **9.2 Statistics and reporting**

Fintraffic ANS will carry out measurements using the performance indicators and monitoring indicators included in Section 2 of Annex I to the Commission Implementing Regulation (EU) 2019/317 and report on them to the aviation authorities each calendar year.

## **10 UPDATES TO THIS MANUAL**

This Airspace Management Operations Manual is updated as necessary on a joint decision of Traficom and the Finnish Air Force.

Proposals for amendments shall be submitted to Traficom or the Finnish Air Force for assessment. Any needs for change will be reviewed at least once per calendar year.

### **APPENDIX 1. PRINCIPLES GOVERNING THE USE OF AIRSPACE BY THE FINNISH DEFENCE FORCES**

### **APPENDIX 2. ORDER OF PRIORITY FOR AIRSPACE USE**

### **APPENDIX 3. CONTACT INFORMATION OF OPERATORS CONTRIBUTING TO ASM PROCESSES**

### **APPENDIX 4. CBO AND LARGE-SCALE EXERCISE PLANNING**