

# **Airspace Management Operations Manual**

Procedures for Flexible Use of Airspace

Approved by

Finnish Transport Safety Agency (Trafi) and Air Force Command

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## DOCUMENT HISTORY

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## **ABBREVIATIONS**

<b>AA</b>	Approved Agency
<b>AFC</b>	Air Force Command
<b>AIP</b>	Aeronautical Information Publication
<b>AIRAC</b>	Aeronautical Information Regulation and Control
<b>AIS</b>	Aeronautical Information Services
<b>AMC</b>	Airspace Management Cell
<b>ASM</b>	Airspace Management
<b>ATS</b>	Air Traffic Services
<b>AUP</b>	Airspace Use Plan
<b>CADF</b>	ECAC Centralized Airspace Data Function
<b>CBA</b>	Cross-Border Area
<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
<b>ICAO</b>	International Civil Aviation Organization
<b>LMT</b>	Local Mean Time
<b>NOTAM</b>	Notice to Airmen
<b>NMOC</b>	Network Manager Operations Centre
<b>P area</b>	Prohibited Area
<b>PBN</b>	Performance Based Navigation
<b>PERM</b>	Permanent ATS route
<b>R area</b>	Restricted Area
<b>RMZ</b>	Radio Mandatory Zone
<b>RNAV</b>	Area Navigation
<b>RNP</b>	Required Navigation Performance
<b>TMA</b>	Terminal Control Area
<b>TMZ</b>	Transponder Mandatory Zone
<b>TRA</b>	Temporary Reserved Area

<b>TSA</b>	Temporary Segregated Area
<b>UIR</b>	Upper Flight Information Region
<b>UTA</b>	Upper Control Area
<b>UTC</b>	Coordinated Universal Time
<b>UUP</b>	Updated Airspace Use Plan
<b>QRA</b>	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.
Airspace management level 1: strategic level	<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>
Airspace management level 2: pre-tactical level	<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>
Airspace management level 3: tactical level	Level 3 of ASM involves operational execution and updating of AUP produced at levels 1 and 2 by airspace users and AMC.
Approved agency	An operator that holds specific approval of the Finnish Transport Safety Agency or Finnish Military Aviation Authority and has the right to submit advance notifications of the planned use of airspace structures.
Collaborative decision making	Concept in which all operators interact efficiently and transparently to improve the efficiency of decision-making through accurate and real-time information sharing.



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. The ATS provider promulgates appropriate procedures for flight within CTRs and TMAs.
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. CBA extends across lateral boundaries of one or more FIRs and is 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.
Danger area (D-area)	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. 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.
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.
Flow management position (FMP)	Position established in Area Control Centre Finland to liaise between air traffic control, aircraft operators, and NMOC in matters related to air traffic flow management.
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.
High level policy body (HLB)	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.

	Further provisions on the duties and composition of the National Committee for Airspace Management may be given by government decree.
International waters	Waters beyond the sovereignty of any coastal state, as contrasted with territorial sea, over which the state has sovereignty.
Prohibited area (P-area)	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.
QRA flight	A Quick Reaction Alert (QRA) flight is a transport, reconnaissance, surveillance, identification or interception mission urgently required for the purpose of monitoring and safeguarding territorial integrity. A QRA flight is 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 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.
Temporary segregated area (TSA)	Volume of airspace for exclusive use by military aviation, with pre-defined lateral limits. Operations within a TSA 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.
Transponder Mandatory Zone (TMZ)	Airspace of defined dimensions wherein the carriage and operation of pressure-altitude reporting transponders is mandatory.

# 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. The procedures set out in this Airspace Management Operations Manual and agreed upon by the Finnish Transport Safety Agency (Trafi) and Finnish Military Aviation Authority (FMAA) are intended to ensure the safe, efficient, and flexible use of airspace and transparency in related functions by accommodating all users' requirements. Responsibility for ASM arrangements and airspace allocation within Finland's flight information region (FIR) lies with Trafi. 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 needed for the execution of these tasks. 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. Within the European Union (EU), provisions on the Single European Sky are contained in four 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.

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 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 Finland 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 of airspace for the exclusive use of different user groups
- prioritisation of areas of airspace
- structure and classification of ATS routes
- principles governing the establishment and use of permanent and temporary areas of airspace and related communication
- 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 and military aviation authorities.

In order to increase the efficiency of airspace use, the European Commission (EC) has issued Regulation 390/2013 (*Performance Regulation*) laying down a performance scheme for air navigation services and network functions, and Regulation 255/2010 (*Flow Regulation*) laying down common rules for air traffic flow management. 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 Finland 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). Airspace limits and boundaries are published in the Finnish Aeronautical Information Publication (AIP Finland). Areas of temporary reserved airspace can be established in accordance with the procedures laid down in this manual. The Finnish Transport Safety Agency (Trafi) decides on the establishment of and changes to the airspace blocks under Finland's responsibility. Modifications to permanent airspace structures are usually implemented upon the ATS provider's proposal. Airspace users may propose modifications to airspace structures either direct to the ATS provider or to Trafi.

Modifications to permanent airspace structures require an extensive hearing process to ensure that the needs of different groups of airspace users are taken into account. In practice, this means that modifications are implemented on an annual basis as a result of systematic planning, to achieve optimum management of the entire airspace. Finavia publishes on its website a schedule of forthcoming Aeronautical Information Regulation and Control (AIRAC) amendments that includes the planned effective dates, publication dates, and dates for submitting raw data to the relevant Aeronautical Information Services (AIS) unit for dissemination.

### **3.2 FIR**

The Finland FIR is defined in the aeronautical information publication (AIP Finland). The FIR is further divided into sectors. The sectors and ATS units providing service therein are defined in the AIP. FUA principles are applied throughout the Finland 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.

#### **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. Within the Finland FIR, responsibility for provision of ATS in controlled airspace is delegated to Swedish and Norwegian service providers over three areas: KVARKEN (FL95+), MANTO (FL65+) and HALTI (FL95+). ATS delegated areas are published in AIP ENR 2.2.

### **3.3 CTA**

Control Areas (CTA) are published in AIP Suomi – Finland.

### **3.4 TMA and CTR**

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

### **3.5 FIZ**

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

### **3.6 TSA and TRA**

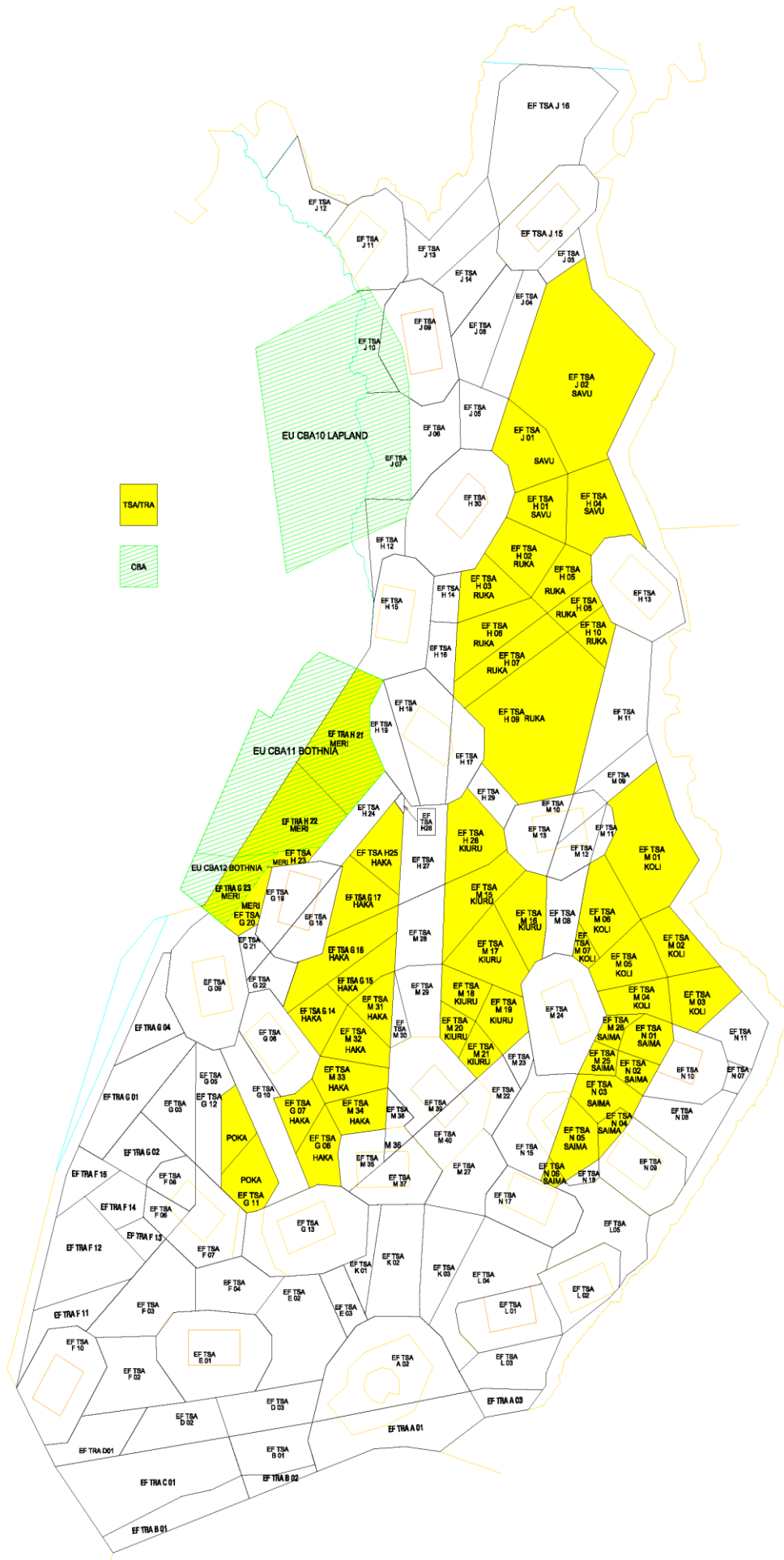
Temporary Segregated Areas (TSA) are established by government decree and published in AIP Suomi – Finland.

Temporary Reserved Areas (TRA) are published in AIP Suomi – Finland. TRAs adjacent to airports are established for the purpose of flight operations, and ATS is provided in accordance with the airspace class. Approved Agencies (AA) may issue TRA advance notifications to the AMC.

*Note: TRAs over international waters reserved by military operators are treated like TSAs.*

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 1 (yellow):  
TSAs defined as Defence Forces priority areas and TRAs over international waters. Operations in category 1 areas primarily close off ATS routes in CDR2 category. Procedures applicable to CDR 1 category ATS routes are laid down in Section 3.12.2.
- Category 2 (white):  
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. Activities in category 2 areas may close off ATS routes in classes PERM / CDR1 and CDR2.
- CBAs (green, CBA Lapland and CBA Bothnia):  
Airspace use priorities are described in Appendix 2.



### **3.7 Cross Border Area (CBA)**

CBAs are established for the use of military aviation by two or more states, and enable the use of airspace across national borders. They are established by intergovernmental treaty and further specified through joint operation agreements.

CBAs affect the availability of ATS routes. Priorities are described in more detail in Appendix 2 to this document. CBAs are published in AIP Suomi – Finland.

### **3.8 P area**

In prohibited areas (P areas), flying is prohibited to ensure the safety of installations located in those areas and their environment. Applications for exemptions to fly in a P area may be submitted to Trafi.

P areas are established by Government Decree and published in AIP Suomi – Finland.

### **3.9 R area**

In restricted areas (R areas), flying is only allowed by permission of the Defence Forces or under special conditions laid down by the Defence Forces or the Border Guard.

R areas are established by Government Decree and published in AIP Suomi – Finland.

### **3.10 D area**

In danger areas (D areas), activities dangerous to aircraft may be undertaken to a variable extent at scheduled times. An aircraft may fly into a activated D area in uncontrolled airspace at the discretion of the pilot-in-command. In controlled airspace, ATC will ensure the separation of aircraft under ATC responsibility from activated D areas as specified in the Finnish ATC Manual.

Firings conducted by the Defence Forces in D areas over international waters and unmanned aircraft activities by the Defence Forces in D areas are announced as described in section 7.2.2.

Approved Agencies (AA) in D areas established for general and recreational aviation may issue advance notifications as described in section 7.2.3. These areas will be activated on the day of operations, and the requirement for a 7-day notice pursuant to ICAO Annex 15, paragraph 5.1.1.4 need not be complied with.

D areas are established by Aviation Regulation OPS M1-28 and published in AIP Suomi – Finland.

### **3.11 Temporary airspace restrictions**

For compelling reasons of flight safety, national defence, police operations, rescue operations, safety investigation or public order and border security, Trafi may restrict or prohibit aviation in a specific area for a period of no more than two weeks as described in section 7.1.2.

Trafi 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



exceptional and urgent cases, Trafi may establish a temporary D area without following the process described in section 7.1.2. Such cases may include urgent needs to survey storm damage using an unmanned aerial vehicle (UAV) in uncontrolled airspace.

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

- 1) by request of the rescue, police or military authorities, the Border Guard, Customs, a sea or air rescue centre, the Radiation and Nuclear Safety Authority or an aviation authority, for a period of no more than 3 days, if it is essential for aviation safety, national defence, police operations, rescue operations, safety investigation or public order and safety; or
- 2) at its own initiative, for a period of no more than 1 day, if there is an exceptional and particularly compelling reason to do so, related to aviation 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 essentially as AIP Supplements. In urgent cases, a NOTAM may be issued, in which case the requirement of ICAO Annex 15, paragraph 5.1.1.4 need not be complied with.

### **3.12 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.

#### **3.12.1 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 Trafi. Permanent ATS routes in the Finland FIR are published as RNAV routes in AIP Suomi – Finland.

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

Category 1 conditional (CDR 1) ATS routes are permanently available for flight planning during the times the relevant category is in effect. A CDR1 route may be closed off with an Airspace Use Plan or Updated Airspace Use Plan (AUP/UUP) issued by the AMC. Closing off a CDR1 route requires a decision by Trafi and must follow the procedures described in Appendix 1. CDR1 ATS routes in the Finland FIR are published in AIP Suomi – Finland.

### **3.12.3 Category 2 Conditional Air Traffic Service Routes**

Category 2 conditional (CDR 2) ATS routes are not permanently available for flight planning. The availability of a CDR 2 route is stated daily in the Airspace Use Plan (AUP) or Updated Airspace Use Plan (UUP) issued by the AMC. CDR2 ATS routes in the Finland FIR are published in AIP Suomi – Finland.

### **3.12.4 Night-time Free Route Airspace (FRA)**

Night-time free route airspace (FRA) procedures are available in Finland. Within FRA airspace, users may plan their flights direct between published reporting points in the Finland FIR. FRA procedures are available in the Finland FIR between FL95 and FL660 except Helsinki TMA Upper and the delegated areas HALTI and MANTO. FRA procedures are valid Mon to Sun 2100–0330 UTC (daylight saving time: Mon to Sun 2000–0230 UTC). During FRA operations, the Eurocontrol IFPS system will not accept flight plans with routings that would take the aircraft into a TSA or TRA declared in an AUP or UUP. FRA procedures are published in AIP Suomi – Finland.

## **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, provision of air navigation services and flexible use of airspace. Procedures for the flexible use of airspace are included in this ASM Operations Manual.

A National Committee for Airspace Management has been established under the Ministry of Transport and Communications. The Government appoints the Committee for a term of three years at a time. It consists of representatives of civil and military aviation operators. The purpose of the National Committee for Airspace Management at the strategic level is to identify the needs of various airspace users, to mediate in any disputes that may arise, and provide statements to support decision-making by competent authorities. The tasks of the Committee also include the preparation of national positions particularly with regard to EU legislation that will affect airspace management at national level.

The objective of the National Committee for Airspace Management is to promote the safe and efficient use of national airspace through the establishment and approval of national operating principles and monitoring mechanisms for airspace use.

The needs of all airspace users must be taken into account along with statutory and environmental requirements, neighbouring states and the requirements of national security and defence.

## **5 AMC ORGANISATION**

### **5.1 General**

An airspace management cell (AMC) is collocated with the Area Control Centre Finland. 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 Finavia, or his/her deputy. Military 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.

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

## **6 AMC FUNCTIONS AT THE STRATEGIC LEVEL**

The AMC regularly reviews the functionality of airspace structures and ATS route network, and reviews airspace procedures and the performance of FUA operations. In this capacity it shall take into account all airspace users' requirements.

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

### **7.1 Airspace use planning**

#### **7.1.1 Annual planning**

Approved agencies (AA) shall submit an AUP for the next calendar year to Trafi and AMC no later than 30 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 must be published in an AIP Supplement. Bids for airspace reservations must be submitted to Trafi no later than 10 weeks before the commencement of the planned activity, as shown in Figure 1 below.

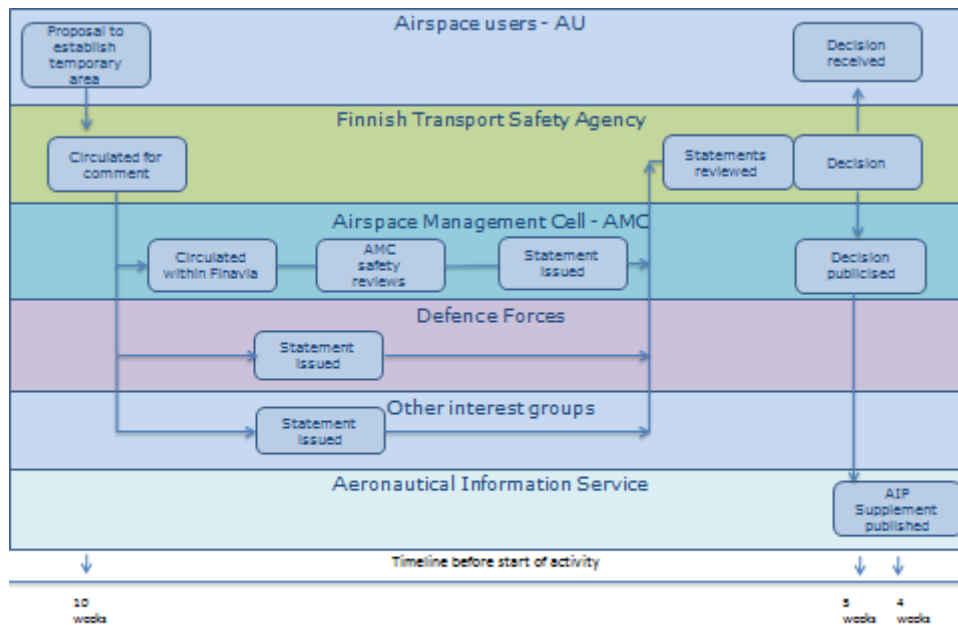


Figure 1

Units of the Defence Forces may coordinate the submission of a bid with the AMC in advance. These talks will be based on an advance bid for airspace reservation provided to the AMC, and the coordinated bid must be submitted to Trafi no later than 8 weeks before the planned activities are commenced, as shown in Figure 2 below.

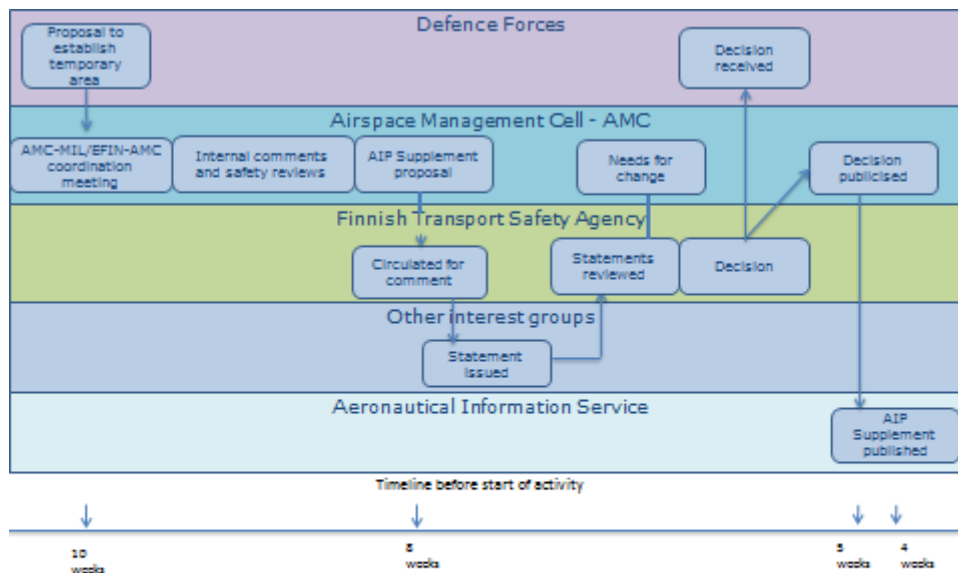


Figure 2

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

### **7.2.1 General**

At the pre-tactical phase, the AMC plans 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 activities dangerous to aircraft for permanent R areas and permanent D areas over international waters**

The AMC shall normally be notified about any planned activity in permanent R areas, permanent D areas over international waters or temporary D areas established in accordance with the procedure described in Section 7.1.2 (or temporary D areas over international waters) no later than 14 days before the commencement of the activity, unless otherwise agreed in a separate coordination agreement with the operator or unless another procedure approved by Trafi is in effect. The AMC verifies the details of the notification and prepares a NOTAM proposal that the AIS unit uses to produce a NOTAM for the activation of the area for dissemination no later than 7 days before the activity is commenced.

The following constitute exceptions to the above:

- 1) Firings conducted during readiness inspections and short-duration Navy firings within temporary overwater 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 state 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.
- 2) Urgent executive assistance provided to 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 will verify the details in the notification and draw up a NOTAM proposal, based on which the Aeronautical Information Services Unit will issue a NOTAM concerning activation of the area. In this case, the requirement of ICAO Annex 15, paragraph 5.1.1.4 need not be complied with.

### **7.2.3 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 Trafi, 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 on the last working day preceding the activity. Advance notifications received after 12:00 LMT cannot be guaranteed priority over other airspace arrangements or air traffic.

### **7.2.4 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.

### **7.2.5 CDR route availability requests**

The Flow Management Position (FMP) and Eurocontrol's Network Manager Operations Centre (NMOC) may submit requests for the opening of specified Conditional Routes (CDR) due to existing air traffic flow conditions. When such an operator submits a request for the opening of a CDR, the AMC will assess the effects of the request on any previously approved TSAs, TRAs, R areas and D areas and decide on the availability of the CDR route.

### **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 on the use of TSAs, TRAs, R areas and D areas, and CDR requests from airspace users. 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.

### **7.3.2 ATS route availability**

Available ATS routes are promulgated in an AUP/UUP issued on a daily basis. The opening of an ATS route is not required if the planned opening time would be less than 2 hours, but ATC may then clear an aircraft to fly through the restricted airspace if the area is not active.

### **7.3.3 TSA, TRA and CBA activity**

Active status of TSAs, TRAs or CBAs is declared with an AUP/UUP message and using an AIS chart product.

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

### **8.1 General**

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 the airspace is deactivated immediately when the activity that caused the restriction is terminated. At the tactical level of ASM it is also possible to approve reservations that have not been coordinated in advance in accordance with the principles of ASM at the pre-tactical level. In this case, however, reservations may be subject to restrictions concerning the upper, lower, and lateral limits of the area or its activation and deactivation times. Any changes to an advance notification shall be submitted immediately to AMC for coordination.

### **8.2 Dynamic airspace management**

Operative 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 government statutes and authority regulations in line with the collaborative 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.

### **8.3 Operative Airspace Management Cell**

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

#### **8.3.1 Activation of reserved airspace**

A request for activation shall be submitted to the AMC no later than 15 minutes prior to the commencement of the activity for which the reservation was requested. The ATS provider must aim to ensure that the airspace can be released for use by the reserving operator no later than the planned activation time.

Activation of an airspace reservation requires that the AMC has all data pertinent to the reservation, including contact information of the person in charge of the reservation.

Airspace reservations are activated by the AMC, which verifies the information provided by the reserving operator and coordinates the activation with affected ATS units. The AMC notifies the reserving operator of the activation.

If an ATS unit is unable to accept the reservation in its requested form due to traffic (or if a bid 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.

### **8.3.2 Changing a reservation**

The AMC strives to approve airspace reservations in their planned form while honoring 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, 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.

### **8.3.3 Cancellation of airspace reservation**

The airspace user must contact the AMC to cancel an active reservation upon the termination of the activity for which the reservation was requested. 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.

## **8.4 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.



## 8.5 Adjacent and overlapping airspace reservations

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 military airspace reservations. Separation rules between aircraft are not observed for military aircraft using adjacent airspace reservations. Users of the areas are notified of adjacent airspace reservations for military use.

If one of the parties involved in adjacent or overlapping airspace reservations is a civilian operator, reservation areas will be allocated according to the following principles:

R area in civilian use – TSA in MIL use: Overlapping areas can be allocated.

R area in civilian use – TRA in MIL use: Overlapping areas can be allocated.

R area in civilian use – TRA in civilian use: Overlapping areas will not be allocated.

TEMPO R area in civilian use – R area in MIL use: At Trafi's discretion.

R area – D area: Overlapping areas can be allocated.

D area in civilian use – TSA in MIL use: Overlapping areas can be allocated.

D area in civilian use – TRA in civilian use: Overlapping areas can be allocated depending on airspace class and flight rules.

D area in civilian use – TRA in MIL use: Overlapping areas can be allocated depending on airspace class and flight rules.

D area over international waters – TRA in MIL use: Overlapping areas can be allocated.

D area over international waters – TRA in civilian use: Overlapping areas will not be allocated.

The following procedures are observed for separation between areas and air traffic:

R area in civilian use – TSA in MIL use: No separation.

R area in civilian use – TRA in MIL use: No separation.

TEMPO R area in civilian use – R area in MIL use: No separation.

R area – D area: No separation.

D area in civilian use – TRA in civilian use: Separation according to airspace class and flight rules.

D area in civilian use – TSA in MIL use: No separation, users must be notified of any reservations.

D area in civilian use – TRA in MIL use: Separation according to airspace class and flight rules. Separation may be waived if military operator so requests.

D area over international waters – TRA in MIL use: No separation.

D area over international waters – TRA in civilian use: No separation.

## **8.6 Airspace reservations without advance notification**

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. In this case, the requirement of ICAO Annex 15, paragraph 5.1.1.4 need not be complied with as regards the NOTAM message.

## **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 and Commission Regulations (EU) No 390/2013 and 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**

The AMC/FMP is required to carry out necessary measurements using the performance indicators explained in Appendix 4.

The regulations also require that annual reports on the use of national airspace be submitted to the European Commission pursuant to Article 8 and Annex of the FUA Regulation and Article 7(2) of Regulation 551/2004. In Finland, responsibility for this rests with the Ministry of Transport and Communications.

## **10 UPDATES TO THIS MANUAL**

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

Proposals for amendments shall be submitted to Trafi 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: MONITORING OF AIRSPACE USE**