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INTERIM GUIDANCE MATERIAL ON CIVIL/MILITARY COOPERATION IN AIR TRAFFIC MANAGEMENT

Second Edition

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EUROPEAN AND NORTH ATLANTIC OFFICE OF ICAO

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Preamble

History

1. Annex 2 - *Rules of the Air*, contains rules concerning flight and aircraft manoeuvring within the scope of Article 12 of the Convention, and provisions for coordination with military authorities for reasons of integrity and territorial sovereignty of a State. In addition Annex 11 - *Air Traffic Services*, contains provisions concerning the need to coordinate with military authorities or units, mainly to the extent that State aircraft activities may affect civilian operations and *vice versa*.

2. In addition, the *Procedures for Air Navigation Services - Air Traffic Management* (PANS-ATM, Doc. 4444) contain procedures applicable to other in-flight contingencies, such as lost or unidentified aircraft, that require coordination with military authorities, and describe procedures for the implementation of special military operations.

3. Information on coordination requirements between military units and air traffic services can also be found in the *Manual concerning safety measures relating to military activities potentially hazardous to civil aircraft operations* (Doc 9554) and in the *Air traffic services planning manual* (Doc 9426).

4. The *ICAO Global Air Traffic Management Operational Concept* (Doc 9854) describes the services required to operate the global air traffic system in the near future and beyond, and lists the requirements to provide more flexibility for users, maximize efficiency, and increase system capacity, while improving safety. Integral parts of these elements are interoperability and military system operations.

5. Furthermore, in response to the agreements reached at the 2009 Global air traffic management forum on civil-military cooperation, ICAO and civil and military experts developed Circular 330-AN/189, which contains examples of good practices in civil-military cooperation and recognizes that growing civil air traffic and military air missions would benefit significantly from a more flexible use of airspace, and recommends and provides guidance on best practices in civil-military cooperation that could be adopted by States.

6. As a result of the 37th ICAO Assembly in 2010 the following resolution **A37-15: Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation** was endorsed which addresses in Appendix O the coordination and cooperation of civil and military air traffic

APPENDIX O TO ASSEMBLY RESOLUTION A 37-15 (*similar as A 38-12, App I*)

Coordination and cooperation of civil and military air traffic

Whereas the airspace is a resource common to both civil and military aviation and given that many air navigation facilities and services are provided and used by both civil and military aviation;

Whereas the Preamble of the *Convention on International Civil Aviation* stipulates that signatories thereto had "agreed on certain principles and arrangements in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically";

Whereas Article 3 a) of the Convention states that "the Convention shall be applicable only to civil aircraft, and shall not be applicable to state aircraft" and Article 3 d) requires that "contracting States undertake, when issuing regulations for their state aircraft, that they will have due regard for the safety of navigation of civil aircraft";

Recognizing that growing civil air traffic and mission-oriented military air traffic would benefit greatly from a more flexible use of airspace used for military purposes and that

satisfactory solutions to the problem of cooperative access to airspace have not evolved in all areas;

Whereas the flexible use of airspace by both civil and military air traffic may be regarded as the ultimate goal, improvement in civil/military coordination and cooperation, offers an immediate approach towards more effective airspace management; and

Recalling that the ICAO Global ATM Operational Concept states that all airspace should be a usable resource, any restriction on the use of any particular volume of airspace should be considered transitory, and all airspace should be managed flexibly:

The Assembly resolves that:

1. the common use by civil and military aviation of airspace and of certain facilities and services shall be arranged so as to ensure the safety, regularity and efficiency of civil aviation as well as to ensure the requirements of military air traffic are met;

2. the regulations and procedures established by Contracting States to govern the operation of their state aircraft over the high seas shall ensure that these operations do not compromise the safety, regularity and efficiency of international civil air traffic and that, to the extent practicable, these operations comply with the rules of the air in Annex 2;

3. the Secretary General shall provide guidance on best practices for civil/military coordination and cooperation;

4. Contracting States may include, when appropriate, representatives of military authorities in their delegations to ICAO meetings; and

5. ICAO serves as an international forum that plays a role in facilitating improved civil/military cooperation, collaboration and the sharing of best practices, and to provide the necessary follow-up activities that build on the success of the Global Air Traffic Management Forum on Civil/Military Cooperation (2009) with the support of civil/military partners.

Associated practices

1. Contracting States should as necessary initiate or improve the coordination and cooperation between their civil and military air traffic services to implement the policy in Resolving Clause 1 above.

2. When establishing the regulations and procedures mentioned in Resolving Clause 2, the State concerned should coordinate the matter with all States responsible for the provision of air traffic services over the high seas in the area in question.

3. The Council should ensure that the matter of civil and military coordination and cooperation in the use of airspace is included, when appropriate, in the agenda of divisional and regional meetings, in accordance with Resolving Clauses 3, 4 and 5 above.

7. During the 38th Assembly in 2013, the Assembly resolution **A38-12: Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation** was endorsed which included in Appendix I the same aspects/elements regarding the coordination and cooperation of civil and military air traffic as the previous Appendix O from A37-15.

8. In addition, a number of States raised this issue at the Second High-Level Safety Conference (HLSC 2015) in 2015, where Working Paper (WP82) addressed the increased number of occurrences involving civil and military aircraft in High Seas airspace. The States views for strengthening the

coordination between civil and military operations were strongly supported and agreed by the Conference, resulting in the following HLSC Conclusion:

> **HLSC 2015 Conclusion 1/2 – ….e) States should ensure the safety of civil aircraft through civil/military coordination as outlined in the ICAO Circular 330 (*Civil/Military Cooperation in Air Traffic Management*) and should update that Circular on a regular basis.**

9. Nothing in this Interim Guidance Material should be construed as contradicting or conflicting with ICAO Standards and Recommended Practices and Procedures contained in the Annexes and PANS.

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RECORD OF AMENDMENTS

INTERIM GUIDANCE MATERIAL ON CIVIL/MILITARY COOPERATION IN AIR TRAFFIC MANAGEMENT

This chart provides records of changes to edition 1.0 and onward editions.

	Paragraph(s)	**Explanation**
1st edition		As a result from the Baltic Sea Project team, the first edition of the EUR Doc was endorsed by EANPG/57 in December 2015
2nd edition	Chapter 3, para 3.12	Due regard principles from Finland added, draft version for approval at EANPG/58

DEFINITIONS

Note. — Definitions of terms which are not self-explanatory in that they do not have accepted dictionary meanings are presented below. A definition does not have an independent status but is an essential part of the paragraph of the Guidance Material in which the term is used, since a change in the meaning of the term would affect the provision.

Note. — Most of the definitions and terms used throughout this Guidance Material are taken from the relevant ICAO Annexes, PANS and Manuals (reference to ICAO Docs is indicated in brackets for each term). However, several terms have been defined specifically for this EUR Document and this is indicated by an "".*

When the following terms are used in this Guidance Material, they have the following meaning:

Ad hoc structures **-** Airspace structures, whether routes or areas, required in order to meet operational needs at shorter notice than Level 1 process. The establishment of such ad hoc structures at Level 2 or Level 3 follows the general design and safety management criteria.

Aeronautical Information Publication (AIP) (Annex 15) A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

Air traffic control clearance **-** Authorization for an aircraft to proceed under the conditions specified by an air traffic control Unit.

Air traffic flow management (ATFM) **-** A service established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring that ATC capacity is utilised to the maximum extent possible, and that the traffic volume is compatible with the capacities declared by the appropriate ATS authority.

Air Traffic Management (ATM) **-** The dynamic, integrated management of air traffic and airspace (including air traffic services, airspace management and air traffic flow management) under safe, cost-effective, and efficient conditions by providing facilities and seamless services in collaboration with all stakeholders and incorporating ground and on-board features.

Air traffic service **-** (Annex 11) A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).

Air traffic services unit **-** (Annex 11) A generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office.

Airspace management (ASM) **-** A planning function with the primary objective of maximising the utilisation of available airspace by dynamic time-sharing and, at times, the segregation of airspace among various categories of airspace users on the basis of short-term needs.

Airspace management cell (AMC) **-** cell responsible for the day-to-day management of the airspace under the responsibility of one or more States.

Airspace reservation **-** A defined volume of airspace temporarily reserved for exclusive or specific use by categories of users.

ASM Level 1 **-** Strategic ASM is the act of defining and reviewing, as required, the national airspace policy taking into account national and international airspace requirements.

ASM Level 2 **-** Pre-Tactical ASM is the act of conducting operational management within the framework of pre-determined existing ATM structure and procedures defined in ASM Level 1

and of reaching specific agreement between civil and military authorities involved.

ASM Level 3 - Tactical ASM is the act, on the day of operation, of activating, deactivating or real time reallocating of airspace allocated in ASM Level 2, and of solving specific airspace problems and/or of individual OAT/GAT traffic situations in real time between civil and military ATS units and/or controlling military units and/or controllers, as appropriate. This coordination can take place either in active or passive mode with or without action by the controller.

Civil-military coordination - The coordination between civil and military parties authorised to make decisions and agree a course of action.

Collaborative decision-making (CDM) process - The process whereby all ATM decisions, except tactical ATC decisions, are based on the sharing of all information relevant to air traffic operation between all civil and military partners.

Conditional route (CDR) - ATS route that is only available for use and flight planning under specified conditions. A conditional route may be of more than one category, and those categories may change at specified times:

Category 1 conditional route (CDR1)

CDR1 routes are available for flight planning during times published in the relevant Aeronautical Information Publication (AIP).

Category 2 conditional route (CDR2)

CDR2 routes may be available for flight planning. Flights may only be planned on a CDR2 in accordance with conditions published daily in the conditional route availability message.

Category 3 conditional route (CDR3)

CDR3 routes are not available for flight planning. Flights must not be planned on these routes but ATC units may issue tactical clearances on such route segments.

Note: - Over the high seas, CDRs form part of the regional ATS route network and are therefore subject to the Council approved procedure (High Seas Coordination procedure) for the amendment of Council approved ANPs. The designation of ATS routes as CDRs is the prerogative of the State concerned.

Conditional route availability message (CRAM). A special consolidated ASM message issued daily by the centralised airspace data function (CADF/CACD) to promulgate in one message, on behalf of the States, the AMC decisions on conditional routes availability notified by the airspace use plans for the ECAC area. The CRAM is used by aircraft operators for flight planning purposes. Alternatively the route availability publication can also be used.

Controlling military unit - Any fixed or mobile military unit handling military air traffic and/or pursuing other activities and which, owing to their specific nature, may require an airspace reservation.

Cross border area (CBA) - An airspace reservation established over international boundaries for specific operational requirements. This may take the form of a temporary airspace reservation.

Cross border Operations (CBO) - Cross border/FIR boundary operations is a process which encompasses activities conducted by one or more States, within an area established across international boundaries or entirely within the airspace under the jurisdiction of a State.

Danger area - An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.

Flexible Use of Airspace (FUA) **-** Concept of airspace management based on the principle that airspace should not be designated as exclusively military or civilian, but as a continuous space that meets the requirements of all users to the extent possible.

Flight information region (FIR) **-** An airspace of defined dimensions within which flight information service and alerting service are provided.

Flight intention **-** The flight path and associated flight data describing the planned trajectory of a flight to its destination, as updated at any moment.

Flight plan **-** Specified information provided to air traffic services units, relative to an intended flight or portion of the flight of an aircraft.

NOTAM - (Annex 15) A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

Prohibited area **-** An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited.

Restricted area - An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions.

Sector **-** Part of a control area and/or a flight information region/upper flight information region.

Segregated airspace **-** Airspace of specified dimensions allocated for exclusive use to a specific user(s).

System-wide information management (SWIM) **-** An advanced technology programme designed to facilitate greater sharing of air traffic management (ATM) system information such as airport operational status, weather information, flight data or status of special use airspace.

Temporary reserved area (TRA) **-** An airspace temporarily reserved and allocated for the specific use of a particular user during a determined period of time and through which other traffic may be allowed to transit under air traffic control (ATC) clearance.

Temporary segregated area (TSA) **-** An airspace temporarily segregated and allocated for the exclusive use of a particular user during a determined period of time and through which other traffic will not be allowed to transit.

Acronyms/Abbreviations

The acronyms/abbreviations used in this document have the following meanings:

AAR	Air-to-air refuelling
ACAS	Airborne collision avoidance system
ADS	Automatic dependent surveillance
AMC	Airspace management cell
ANSP	Air navigation service provider
ASM	Airspace management
ASTERIX	All-purpose structured Eurocontrol surveillance information exchanger
ATC	Air traffic control
ATFM	Air traffic flow management
ATM	Air traffic management
ATS	Air traffic services
CBA	Cross-border area
CBP	Customs and border protection
CDM	Collaborative decision-making
CNS/ATM	Communications, navigation, and surveillance/air traffic management
FIR	Flight information region
FUA	Flexible use of airspace
GAT	General air traffic
GNSS	Global navigation satellite system
ISR	Intelligence, surveillance and reconnaissance
LOA	Letter of Agreement
MOA	Military operations area
MOU	Memorandum of Understanding
MSL	Mean sea level
NOTAM	Notice to airmen
PANS	Procedures for air navigation services
PBN	Performance-based navigation
PIRG	Planning and implementation regional group (PIRG)
SAR	Search and rescue
SARPs	Standards and Recommended Practices
SUA	Special use airspace
SUPPS	Regional supplementary procedures
SWIM	System-wide information management
TRA	Temporary reserved area
TSA	Temporary segregated area
UNCLOS	UN Convention on the Law of the Sea
UIR	Upper flight information region

CHAPTER 1 - ABOUT THIS INTERIM GUIDANCE MATERIAL

1.1 Purpose

1.1.1 The purpose of this Interim Guidance Material is to assist States (in particular in the ICAO EUR Region) in the improvement of civil/military coordination and cooperation by sharing best practices in airspace management and aircraft operations. It considers the different aspects that States should take into account for the coordination and cooperation between civil and military air traffic, recognizing that the airspace is a common resource of civil and military aviation, that allows to achieve safety, consistency and efficiency of civil aviation and that also meets military air traffic/mission requirements.

1.1.2 Based on the HLSC 2015 Conclusion 1/2 e) the ICAO Air Traffic Management Operations Panel was tasked to review and update the Circular 330 (ICAO circular on civil military cooperation in ATM) with the aim to further enhance and improve the civil/military cooperation. This Circular was developed in 2009 and should be upgraded into a manual, given a document status and its content should be updated.

1.1.3 The ATMOPS Panel was tasked to duely consider the inclusion of FUA in the scope of civil military activities while not restricing the scope of civil military cooperation to only the FUA concept. The panel should also consider the work undertaken on the subject in the various regions (such as provisions listed in the ASIAPAC ATM Seamless plan, or the material developped in Europe).

1.1.4 The work should be finalised by Q4 2016 and it can be expected that the new document will be presented at the next ICAO global air traffic management forum on civil-military cooperation which is tentatively scheduled for the end of October 2016.

1.2 Scope

1.2.1 This Guidance Material has been collected from various sources within the ICAO EUR Region and addresses areas in which the current version of Circular 330 has not defined any provisions or has not detailed enough guidance for States. It includes, in particular, the ICAO provisions to support the expansion of the Flexible Use of Airspace (FUA) concept over the High Seas which had been discussed an endorsed by a majority of the States in the ICAO EUR Region at the EANPG/51 meeting in 2009.

1.2.2 It is expected that this regional interim guidance material from this document will be discussed and evaluated in the Circular 330 revision process of the ATMOPS Panel. Thus the regional document should be withdrawn once the new ICAO circular/document on civil military cooperation in ATM has been finalised at the global level.

1.3 Structure of this interim guidance material

Chapter 1: **About this guidance material**: describes the purpose and scope of this Interim Guidance Material.

Chapter 2: **Flexible Use of Airspace**: describes additional elements of FUA, especially on the application of FUA over the High Seas.

Chapter 3: **Operation of State aircraft under due regard**: provides examples from different States and international organisations on the operation of State aircraft over the High Seas.

Appendix A: EUROCONTROL European Route Network Improvement Plan, Airspace Management Handbook (Part 3), Guidelines for Airspace Management, Version 5.1, November 2014

CHAPTER 2 - FLEXIBLE USE OF AIRSPACE (FUA)

2.1 FUA as described in Circular 330 - General principles

2.1.1 With reference to the ATM Operational Concept, airspace management (ASM) is the process by which airspace options are selected and applied to meet the needs of airspace users. Competing interests for the use of airspace make ASM a highly complex exercise, necessitating a process that equitably balances those interests. The ultimate goal of ASM is to achieve the most efficient use of the airspace based on actual needs and, when possible, avoid permanent airspace segregation.

2.1.2 The management of airspace should follow these guiding principles and strategies:

a) all available airspace should be managed flexibly;

b) airspace management processes should accommodate dynamic flight trajectories and provide optimum operational solutions;

c) when conditions require different types of traffic to be segregated by airspace organization, the size, shape, and time regulation of that airspace should be set so as to minimize the impact on operations;

d) airspace use should be coordinated and monitored in order to accommodate the conflicting requirements of all users and to minimize any constraints on operations;

e) airspace reservations should be planned in advance with changes made dynamically whenever possible. The system also needs to accommodate short-notice unplanned requirements; and

f) complexity of operations may limit the degree of flexibility.

2.1.3 The effective implementation of an ASM process demands commitment from all stakeholders involved. A first step towards an effective implementation of the flexible use of airspace (FUA) concept would be to allow civilian users temporary access to military restricted and reserved airspace for optimum use of the airspace. Another step would be to allow military users temporary access to civilian restricted and reserved airspace.

2.2 The FUA Concept

2.2.1 Flexible use of airspace (FUA) is an airspace management concept based on the principle that airspace should not be designated as purely civil or military, but rather as a continuum in which all user requirements are accommodated to the greatest possible extent.

2.2.2 The FUA concept includes consideration of effective communication, cooperation and coordination necessary to ensure a safe, efficient and predictable use of airspace. The establishment of joint civil/military coordination entities for airspace organization and management is essential to the realization of current and future CNS/ATM initiatives. Meeting future air traffic requirements for increased safety, security, capacity, efficiency, environmental sustainability, and sovereignty depends on effective civil/military coordination.

2.2.3 The civil aviation authorities of some States are already working with military authorities, using coordinated processes to manage civilian use of active military airspace. Jointly, civil and military authorities have put in place procedures to apply airspace reservations or restrictions only during limited periods of time, based on actual use. On completion of the activation requiring segregation, capacity is made available again to civil traffic.

2.2.4 Even when States have agreements, there continues to be numerous occasions when restricted or reserved airspace, with no planned military missions, has gone unused. Temporarily segregating airspace based on actual military requirements, through an effective collaborative civil/military process, should be pursued to recapture this unused capacity and release it for effective

use by civil aviation. In order to enable effective flexible use of airspace, some basic prerequisites should be observed by States:

a) establishment of a national, high-level civil/military coordination body;

b) development of a consistent, collaborative national airspace planning process taking into consideration the needs of all airspace users and national security, defence and law enforcement requirements;

c) establishment of communication, negotiation and priority rules and procedures for civil/military coordination;

d) establishment and publication of procedures for activities which require airspace reservation or restriction. Airspace reservations or restrictions should be applied only for limited periods of time and based on actual use;

e) development of framework agreements between civil and military authorities to facilitate coordination;

f) establishment of a system to periodically review airspace needs, organization and management; and

g) predictive and timely access to restricted or reserved airspace whenever possible in order to maximize benefits and flexibility for all users.

2.2.5 Today aircraft are more capable of accurate navigation than in the past. Using global navigation satellite systems (GNSS) and performance-based navigation (PBN), aircraft can fly between terminals and en-route phases of flight with negligible deviations. However, lack of civil/military coordination of airspace management has resulted in inefficient airspace use and limited use of aircraft capabilities

2.2.6 The safe and efficient joint use of airspace by civil and military operations rests on understanding and accommodating the airspace requirements of all users on a fair and equitable basis, while respecting State sovereignty and national/international security, defence and law enforcement obligations.

2.3 FUA principles

2.3.1 A FUA concept should embrace the following principles:

a) Coordination between civil and military authorities should be carried out at the strategic, pre-tactical and tactical levels (see Figure 1) in order to increase safety and airspace capacity and to improve the efficiency of aircraft operations.

b) Consistency between ASM, air traffic flow management (ATFM) and ATS should be established and maintained at the three levels of ASM.

c) Airspace reservations should be of a temporary nature, applied only for limited periods of time and based on actual use of airspace.

d) The FUA concept should, whenever possible, be applied across national borders and/or the boundaries of flight information regions (FIRs).

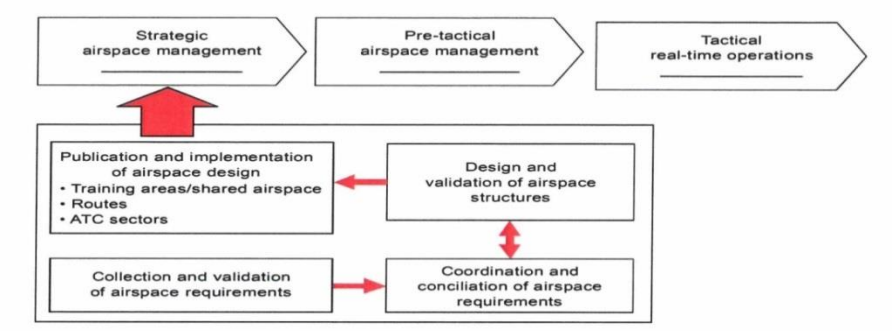

Figure 1

2.3.2 Strategic airspace management

2.3.3 At the strategic ASM level, the following tasks need to be performed in order to ensure the overall application of the FUA concept:

a) establish airspace structures;

b) develop coordination procedures and airspace management procedures; and

c) develop cross-border coordination and separation standards between civil and military flights

2.3.4 Pre-tactical airspace management

2.3.5 States should establish an ASM entity to allocate airspace in accordance with the conditions and procedures agreed upon at the strategic level

2.3.6 The ASM entity should take the form of a joint civil-military cell, if both civil and military authorities are responsible for airspace management in a given State. It can also be a joint cell of two or more States. States should provide to the ASM entities adequate supporting systems to ensure a timely and efficient ASM process.

2.3.7 Tactical airspace management

2.3.8 Tactical ASM should be carried out at the level of ATS units and controlling military units. Dedicated coordination procedures and communication facilities should enable mutual provision of airspace data in a timely manner to allow effective real-time activation, deactivation or reallocation of the airspace allocated at the pre-tactical level. All affected users should be notified of the current status of the airspace.

2.3.9 Direct communication between civil and military ATS units/Air Traffic Controllers should be available with a high degree of reliability to permit the resolution of specific traffic situations if and where civil and military controllers are providing services in the same airspace. If required to meet minimum safety levels, exchange of flight data, including the position and flight intention of the aircraft, should be available between civil ATC units and controlling military units.

2.4 Flexible and adaptable airspace structures and procedures

2.4.1 An FUA concept can be based on the potential offered by flexible and adaptable airspace structures and procedures that are especially suited to temporary allocation and utilization like conditional routes, temporary reserved area (TRA), temporary segregated airspace (TSA) and cross-border area (CBA).

2.4.2 Conditional route. A conditional route (Figure 2) is a non-permanent ATS route or portion thereof which can be planned and used under specified conditions. According to its foreseen availability, flight planning possibilities and the expected level of activity of the possible associated TSA, a conditional route can be divided into the following categories:

a) Category one: permanently plannable;

b) Category two: non-permanently plannable; and

c) Category three: not plannable.

2.4.3 Temporary reserved area (TRA). A TRA (Figure 2) is airspace temporarily reserved and allocated for the specific use of a particular user for a determined period of time and through which other traffic may be allowed to transit under ATC clearance.

2.4.4 Temporary segregated airspace (TSA). A TSA (Figure 2) is airspace temporarily segregated and allocated for the exclusive use of a particular user during a determined period of time and through which other traffic will not be allowed to transit.

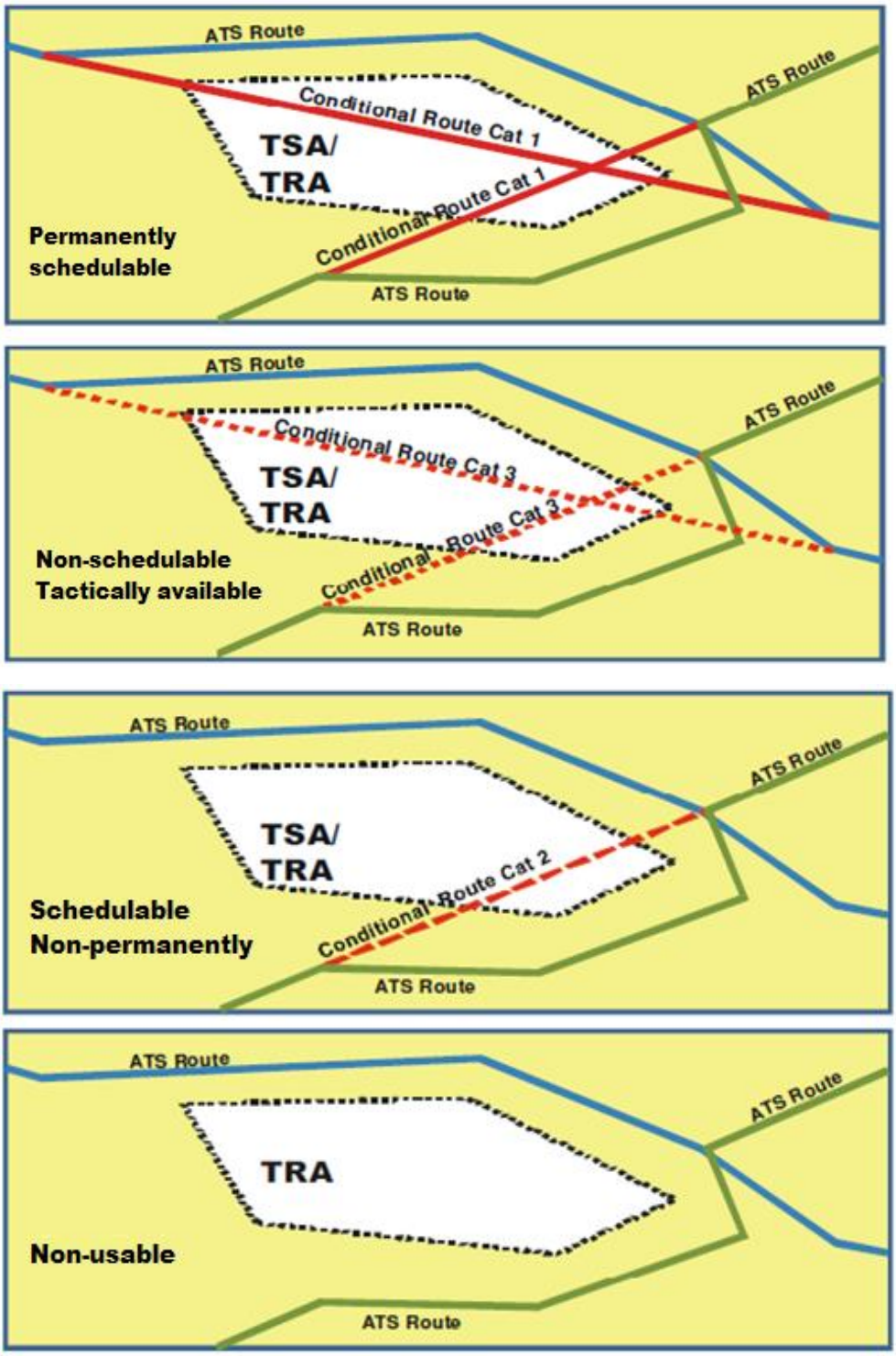

Figure 2

2.4.5 Cross-border areas (CBA). A CBA (Figure 3) is an airspace reservation/segregation established for specific operational requirements over international boundaries. CBAs are established to allow military training and other operational flights in an area across both sides of a border. CBAs, not being constrained by national boundaries, can be located so as to benefit both civil and military aviation. CBAs, combined with the potential use of conditional routes through them, permit the improvement of the airspace structure in border areas and assist in the improvement of the ATS route network. Political, legal, technical and operational agreements between the States concerned are required prior to the establishment of CBAs. Formal agreements for the establishment and use of CBAs have to address issues of sovereignty, defence, legality, liability, operational aspects (CBAs can

be used as Temporary Reserved Airspace and/or as Temporary Segregated Areas), the environment and search and rescue.

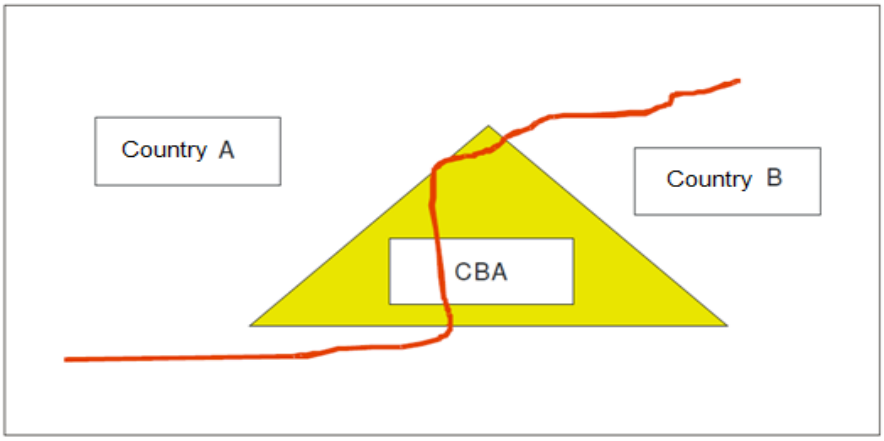

Figure 3

2.5 Collaborative Decision Making (CDM)

2.5.1 Collaborative decision-making (CDM) (Figure 4) is the process whereby all ATM decisions, except tactical ATC decisions, are based on sharing all information relevant to air traffic operations among all civil and military partners. The principles of CDM should be adopted by States, military organisations and service providers, as a tool to support ASM.

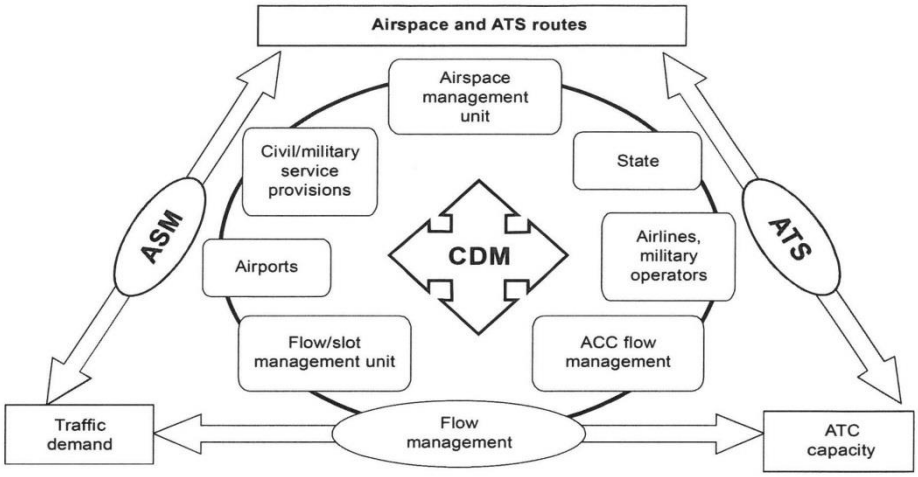

Figure 4

2.5.2 CDM brings together airlines, civil and military aviation authorities and airports in an effort to improve ATM through information exchange, data sharing and improved automated decision support tools.

2.5.3 The philosophy of collaboration promises to become the standard in aviation. CDM enables information sharing and facilitates decision-making processes by ensuring that stakeholders are provided with timely and accurate information essential for the planning of their operations be they civil or military.

2.5.4 For example, accurate estimates of arrival and departure times improve aircraft handling, apron services, stand and gate management, ATC and ATFM. Involvement of military airspace users and military airspace planners in national or regional airspace planning ensures adequate planning both in time and dimension, which serves military aviation but also de-conflicts with civil traffic flows to the maximum extent possible.

2.5.5 By enabling decision-making based on accurate shared information, CDM increases predictability in case of unforeseen events or disruption. Properly carried out, CDM also leads to optimum airspace utilization with benefits to all participants in the system.

2.6 FUA over the High Seas

2.6.1 The flexible use of airspace concept must also cover airspace over the high seas. Its application should therefore be without prejudice to the rights and duties of States under the Convention on International Civil Aviation (Chicago Convention) and its annexes, or the 1982 UN Convention on the Law of the Sea (UNCLOS) [1].

2.6.2 The application of the FUA over the high seas is without prejudice to the rights and duties of States regarding access to high seas airspace under the Chicago Convention, in particular Articles 3 a) and d) of the Chicago Convention.

2.6.3 Regulations governing flights of State aircraft over the high seas should, to the maximum extent practicable, comply with the relevant provisions of Annex 2. Where this is not possible due to the nature of the operations involved, measures should be taken to ensure that other aircraft are not endangered by such operations. These should preferably be established in coordination with the State responsible for the provision of air traffic services over that part of the high seas affected by such operations.

2.6.4 Access to high seas airspace cannot be denied nor can State aircraft be "forced" to participate in the application of an FUA concept. Any procedure or agreement developed must not give the operators of State aircraft the perception that their operations would be restricted in any way. Therefore, the procedures and/or agreements must also acknowledge that negotiating the use of the airspace was the ideal; however there would be some circumstances when only notification of operation would be possible or operational considerations may preclude either negotiation or notification.

2.6.5 States which have accepted the responsibility to provide air traffic services over the high seas should ensure that danger areas established over the high seas are of a temporary nature and should include mechanisms which promote access by all airspace users to the fullest extent possible. In this context it should be noted that the establishment of such areas are to be without prejudice to the rights and duties of States under the Convention on International Civil Aviation (Chicago Convention) and its Annexes, or the 1982 UN Convention on the Law of the Sea (UNCLOS) [2]. However, the States should introduce the flexible management of such danger areas to the extent possible and based on the actual use of airspace.

2.6.6 States which have accepted the responsibility to provide air traffic services over the high seas should lay down the necessary guidelines to reflect the status of the airspace coordination process over the high seas, and should ensure that, the airspace management cell established by the State which has accepted the responsibility to provide air traffic services in airspace over the high seas is the focal point for all airspace requests over that airspace. States should take into account the benefits of the establishment of joint AMCs, which might enhance the cooperation among the user and provider States.

2.6.7 The FUA concept may be employed over the high seas in accordance with the principles used for airspace of sovereign territory. When so applied, it should be recognized that State aircraft of all other States can exercise their right to fly in any airspace over the high seas under the principle of "due regard" as described in the Chicago Convention, (Article 3 a) and d)).

2.6.8 Whenever possible, State aircraft should comply with the ICAO provisions. Civil aircraft and State aircraft operating in accordance with ICAO provisions are required to apply the provisions of Annex 2 which apply without exception over the high seas. In particular, the provisions of Annex 2, paragraph 3.6.1.1 regarding the requirement to obtain a clearance before operating as a

[1] Turkey is not a signatory to the UNCLOS and their position is well known and remains unchanged.
[2] Turkey is not a signatory to the UNCLOS and their position is well known and remains unchanged.

controlled flight and paragraph 3.6.5.1 regarding the requirement to establish two-way communication with the unit providing air traffic control service are to be observed

2.6.9 In order to provide added airspace capacity and to improve efficiency and flexibility of aircraft operations, States should establish agreements and procedures providing for a flexible use of airspace including that reserved for military or other special activities in accordance with the ICAO provisions. The agreements and procedures should permit all airspace users to have safe access to such airspace. When applicable, such agreements and procedures should be established on the basis of a regional air navigation agreement.

2.7 Objectives, Organisation and Operation of the FUA Concept

2.7.1 Airspace should not be designated as either purely civil or purely military airspace, but should rather be considered as one continuum in which all users' requirements have to be accommodated to the maximum extent possible. States should apply the flexible use of airspace concept whenever:

a) activities require the reservation of a volume of airspace for their exclusive or specific use for determined periods due to the characteristics of their flight profile or their potential hazards and the need to ensure effective and safe separation from non-participating air traffic;

b) different types of aviation activities occur in the same airspace but with different requirements. Their coordination should seek to achieve both the safe conduct of flights and the optimum use of available airspace;

c) accuracy of information on airspace status and on specific air traffic situations, and timely distribution of this information to civil and military controllers and controlling military units has a direct impact on the safety and efficiency of operations; and

d) timely access to up-to-date information on airspace status is essential for all parties wishing to take advantage of airspace structures made available when planning their flights.

2.7.2 When applying the FUA, the States should:

a) maintain and actively seek to improve the safe and effective management of the airspace and its supporting infrastructure;

b) exercise fair and effective regulation of the airspace organisation and management;

c) build confidence and respect between airspace regulators and all other stakeholders through consultation and cooperation;

d) maintain and improve standards of service through effective planning and monitoring of key processes and activities;

e) accommodate shared use of national airspace by all user groups;

f) harmonise airspace management procedures with neighbouring States;

g) conduct regular monitoring of compliance with the FUA regulations at each level

2.7.3 In particular, States should:

a) ensure that a commonly agreed airspace policy is formulated (e.g. a national airspace charter);

b) ensure that agreed priority rules and negotiation procedures for airspace allocation at ASM Level 2 and ASM Level 3 are clearly defined and implemented;

c) ensure the ongoing (at least yearly) re-assessment of national airspace with regard to effective application of FUA;

d) ensure the progressive establishment of new flexible airspace structures, where appropriate;

e) establish framework agreements between civil and military authorities to facilitate the application of FUA;

f) ensure the introduction of procedures for the allocation of flexible airspace structures on a day-by-day basis;

g) ensure that appropriate national legislation is in place and amended as necessary;

h) ensure that coordination processes between all levels of ASM are established;

i) ensure that adequate real-time civil/military co-ordination facilities and procedures are established;

j) ensure that civil and military terms and definitions applicable to the principles governing the FUA are harmonised;

k) ensure that at any one time the total volume of airspace reservations are kept to a minimum while ensuring safety and satisfying national operational requirements;

l) ensure that a commonly agreed airspace policy for certain portions of airspace of two or more States involved, is formulated; and

m) ensure the regular (at least yearly) re-assessment of the joint airspace of two or more States where appropriate.

2.7.4 The State should ensure that a framework is established for effective coordination between ATS, ASM and ATFM at the three ASM Levels in a collaborative manner, and ensure the establishment of coordination agreements defining clear and unambiguous operational procedures at ASM Level 2 and 3.

2.7.5 States should ensure and monitor that any airspace reservations applicable to ASM are of a temporary nature, and should ensure:

a) that rules are established for the timely activation and release of reserved airspace, based on actual use;

b) that coordination and interaction procedures are established concerning the release and extended activation of reserved airspace different from the reserved timeframe, where appropriate; and

c) that written agreements are drawn up between parties involved.

2.7.6 States should establish consultation mechanisms with all relevant partners and organisations, and should:

a) ensure that consultations with airspace users, service providers and other relevant bodies are conducted with the aim of obtaining consensus, wherever possible, before making changes in the planning or design of airspace arrangements; and

b) ensure that the functional responsibilities of the persons/authorities are defined.

2.7.7 States should define priority criteria for airspace allocation, and should:

a) ensure that the civil and military operational needs, without affording preferential treatment to either, and ensure that airspace planning takes into account all users requirements are reconciled;

b) ensure that the coordination procedures for joint civil-military airspace allocation and review process are defined; and

c) approve and enforce national policies for an effective airspace allocation and review process, taking into account:

i) the needs of all stakeholders;

ii) national security and defence needs;

iii) environmental issues; and

iv) network effects.

2.7.8 States should ensure that civil and military ATM systems are interoperable with respect to supporting the timely sharing of correct and consistent information.

2.7.9 States should ensure that ASM supporting tools and data are available to facilitate airspace planning and allocation. This should include:

a) exchange of airspace data and information to ensure common situational awareness;

b) functionalities to support civil/military airspace planning, booking and coordination;

c) link between ASM, ATFM and ATS functions; and

d) automation of manual tasks.

2.7.10 States should ensure that communication means between all participating units at ASM Level 2 and 3 are available to facilitate timely transmission and receipt of airspace management decisions and sharing of ASM data.

2.7.11 Direct and reliable communication facilities between all units involved should be established.

2.8 STRATEGIC AIRSPACE MANAGEMENT REQUIREMENTS (ASM Level 1)

2.8.1 When States apply airspace planning principles and criteria for ASM Level 1, they should ensure that:

a) the coordination of ASM level 1 decisions is assured;

b) the effective sharing of airspace and its efficient use by civil and military users stemming from the application of FUA is realised through joint civil/military strategic planning and pre-tactical airspace allocation;

c) written agreements or arrangements are put in place between the competent civil and military units, based on timely data processing for airspace planning and allocation, to enable them to take into account the activation and deactivation of temporary structures;

d) efficient operations at ASM Level 3 are put in place including the establishment of coordination procedures between civil and military ATS units, and between them and military controlling units to support a process exploiting the airspace capacity in a dynamic manner;

e) in particular:

i) written agreements between the competent civil and military authorities should be in place (including dispute resolution procedures);

ii) clearly defined LoAs should be agreed and implemented, containing operational agreements (e.g. priority rules and coordination procedures for airspace allocation and use at ASM Levels 2 and 3) as well as the necessary technical support (e.g. system interfaces);

iii) where required, airspace re-allocation, as close as practical to the time of operations to accommodate short-term changes in traffic situation and/or users requirements should be enabled.

2.8.2 Where appropriate, States should conclude agreements with neighbouring States to enable cross border/FIR boundary operations within agreed areas established across international borders or entirely within airspace under the jurisdiction of a State, to include:

a) the allocation and shared use of common cross border areas (CBAs);

b) the allocation and shared use of national areas entirely established within the airspace under the jurisdiction of one of the Contracting States;

c) delegation of responsibility for the provision of air traffic services in designated airspace from one to the other Contracting State(s), if appropriate.

2.8.3 States should authorise their competent agencies such as military controlling units, approved agencies, AMCs and ATS units to negotiate and conclude necessary written agreements that could contain specific operational and technical aspects related to pre-tactical and tactical airspace management, and arrangements for the provision of ATS, if and where applicable.

2.8.4 Such agreements should include all relevant legal, operational and technical issues for cooperation and interaction covering all relevant civil and military issues (e.g. defence, operations, environment and search and rescue), and the following:

a) designation of the responsibility for the provision of ATS;

b) designation of competent civil and military authorities involved in ASM activities;

c) determination of responsibility for allocation of the areas concerned based on the principle of delegation of responsibility to a lead, co-located or integrated multinational AMC as appropriate;

d) air defence coordination and notification procedures;

e) priority allocation rules, time based parameters and reservation assurance processes;

f) coordination procedures and interaction rules concerning the activation and release of the cross-border airspace reservation;

g) services in the area(s) concerned following the principle of delegation of responsibility, where applicable;

h) contingency procedures;

i) other operational issues pertinent to cross border/FIR boundary operations as appropriate; and

j) compatibility of communication and flight data exchange systems between civil and military parties, including usage of technical enablers (e.g. ASM/ATFM tool).

2.8.5 States should ensure the:

a) shared use of airspace in respect of all users;

b) establishment of working structures for ASM Levels 2 and 3, together with the appropriate authority required to carry out the tasks; and

c) establishment of a joint civil and military process for the effective application of the flexible use of airspace concept at a strategic, pre-tactical and tactical level, to include:

i) priority rules;

ii) negotiation procedures;

iii) coordination procedures; and

iv) contingency procedures, where appropriate.

2.8.6 States should conduct regular assessments of their national airspace and ATS route network in order to monitor the application of FUA. In particular, States should ensure:

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

b) that timely data exchange is supported by technical enablers (e.g. ASM/ATFM tool) for airspace allocation closer to the day of operation;

c) that compatible communication and flight data exchange system between civil and military units, including usage of technical enablers (ASM/ATFM tool) are in place; and

d) that dynamic airspace management is considered as a key enabler to exploit optimum airspace capacity.

2.8.7 States should:

a) define mechanisms and establish processes to regularly review civil and military airspace requirements, with the aim of reconciling their operational needs;

b) ensure the consistency between mechanisms; and

c) establish processes to regularly review civil and military airspace requirements.

2.8.8 States should establish policies, define mechanisms and processes to assess and approve activities which require airspace reservations and should:

a) draw up a list of approved civil and military activities requiring airspace reservations planned at national and international level;

b) ensure that the approved activities on the list are related to the minimum needs in terms of space and time and the conditions of execution of such activities; and

c) perform regular revisions of the list of the approved activities and elaboration of new ones.

2.8.9 States should ensure that airspace structures for temporary use in response to users' specific needs, including the possibility for subdividing these airspace structures, are defined and established, and should:

a) establish and publish procedures for airspace allocation and use for activities which require an airspace reservation;

b) ensure that these procedures provide for multiple choice of airspace reservations and related route segments taking into account the network effect;

c) ensure that procedures are in place to promulgate airspace reservations;

d) make provisions for dynamic airspace management processes, at national ASM Level 2 and 3;

e) define and establish processes allowing ASM Levels 2 and 3 to create and operationally use additional ad hoc structures; and

f) establish procedures for airspace allocation and use for activities which require a mobile airspace reservation, where appropriate.

2.8.10 States should ensure that the principles for adjusting lateral and vertical limits of airspace structures including the subdividing of airspace reservations into elementary modules on ASM Levels 2 & 3 are defined, and should:

a) define criteria for designing airspace to enable for adjustable lateral and vertical limits of airspace structures, including the subdividing of airspace reservations into elementary modules;

b) define criteria for adjusting the lateral and vertical dimensions of airspace structures based on subdivided airspace reservations into elementary modules on ASM Levels 2 & 3; and

c) establish procedures for adjusting the lateral and vertical dimensions based on subdivided airspace reservations into elementary modules on ASM Levels 2 & 3.

2.8.11 States should ensure that processes for periodic assessment and analysis of existing airspace structures and ATS route network based on balanced consideration of civil and military requirements are in place with the aim of planning for flexible airspace structures and procedures.

2.8.12 The assessment processes include:

a) identification of need;

b) analysis of the potential impact;

c) decision to proceed;

d) consultation;

e) approval; and

f) publication.

2.8.13 States should define the circumstances when an ATS unit or controlling military unit is responsible for separation between civil and military flights, e.g. in case of a shared portion of airspace, tactical crossing of ATS routes and tactical crossing of temporary reserved areas, and:

a) determine the conditions under which the responsibility for separation between civil and military flights may rest on the air traffic services units or controlling military units;

b) define the criteria for determining the responsibility for providing separation between civil and military flights; and

c) ensure that the conditions and criteria for the responsibility for separation between civil and military flights are contained in written agreements or other appropriate arrangements.

2.9 PRE-TACTICAL AIRSPACE MANAGEMENT REQUIREMENTS (ASM Level 2)

2.9.1 When States apply airspace allocation at ASM Level 2, they should:

a) appoint a focal point, or establish and authorise airspace management cells, or joint civil and military airspace management cells;

b) authorise AMC to conduct airspace allocation and management in a decisive, timely and efficient manner and resolve conflicting airspace requirements;

c) ensure that staff is adequately trained in the knowledge and operation of the airspace allocation process and use of supporting systems;

d) ensure that AMCs collect and analyse all airspace requests, coordinate and decide the daily airspace allocation taking into account the level 1 rules, user requirements, available capacity and the effect on the network; and

e) make AMCs responsible for the conduct of day-to-day Level 2 airspace allocation and management.

2.9.2 In particular, the airspace management cells should:

a) act as the day-to-day focal point for ASM Level 2 coordination;

b) collect and analyse all airspace requests which may require a temporary airspace reservation , including airspace allocation decisions taken at ASM Level 1 in respect of major military exercises, air shows etc;

c) analyse the CDR availability requests together with the traffic demand, anticipated ATC capacity problems and expected delay information received from the FMP;

d) resolve conflicting requests for airspace reservations and CDRs utilising all relevant information;

e) resolve conflicts between incompatible or conflicting airspace requests by the application of approved priorities, re-negotiation and rescheduling;

f) coordinate with adjacent AMC the harmonised availability of "cross-border" CDRs;

g) respond to any additional request for assistance by the CFMU, the ACC/FMPs and other approved agencies on matters arising from inconsistencies in supplied data, decisions or unexpected events;

h) decide on the allocation of airspace reservations and CBAs, after completion of the collation, coordination, analysis, negotiation and resolution process;

i) activate CDR 2 in accordance with established procedures and for a minimum time of two hours, but with no limit when it concerns the extension of the availability of the same route with CDR 1 status;

j) decide in accordance with criteria established at Level 1 on the provisional closure of CDRs 1 to be handled in real-time at ASM Level 3 in conjunction with the notification of activity in associated airspace reservations;

k) promulgate the airspace allocation by transmitting the Airspace Use Plan (AUP) to adjacent AMCs and ATFM Unit(s);

l) after the AUP distribution, provide clarification to ATFM Unit(s), if needed, and cross-check the "Draft CRAM/route availability publication" upon reception;

m) collect and analyse more up-to-date information on the day of operations f concerning the cancellation of airspace reservations already published in the current AUP;

n) promulgate on the day of operation, if necessary, Updated Airspace Use Plans (UUPs) containing additional reservations a during the period of validity of the current AUP;

o) participate in a post analysis of airspace allocation;

p) develop a reporting process which will deliver a view on the optimisation of the availability and utilisation of shared airspace; and

q) conduct, where authorised, some Level 3 coordination tasks.

2.10 TACTICAL AIRSPACE MANAGEMENT REQUIREMENTS - (ASM Level 3)

2.10.1 When carrying out real time civil/military ASM coordination, States should ensure:

a) the definition, agreement and enforcement of coordination procedures, including he use of system support, between civil and military ATS units and between them and controlling military units, vested with agreements, to facilitate real-time activation, de-activation, re-allocation or modification of the airspace allocated at pre-tactical level;

b) that the determination of these coordination procedures and communication facilities takes into account the network effect;

c) that the procedures for timely exchange of any modification of airspace status between all affected civil and military units are properly addressed in written agreements;

d) that any modifications of planned activation of airspace are notified to users in a timely and effective manner, in order to facilitate safe, efficient and economic operations; and

e) the provision of data at network level subject to national security requirements.

2.10.2 States should ensure that coordination procedures between civil and military ATS units/controlling military units are defined and agreed and operated to ensure safety when managing interactions between civil and military flights.

2.10.3 States should also ensure:

a) that coordination procedures permitting and enabling direct communication between civil and military air traffic service units are properly addressed in written agreements in order to facilitate the safety resolution of specific traffic situations;

b) that the coordination procedures, including the system support, facilitate the availability of relevant information through the timely exchange of flight data, including the position and flight intention of aircraft; and

c) the application of a commonly agreed radar data format, direct controller to controller voice communication and timely exchange of flight data, ideally through automatic data exchange.

2.11 CROSS-BORDER OPERATIONS AND COORDINATION REQUIREMENTS

- ***ASM Level 1 cross-border operations and coordination***

2.11.1 States should establish, where appropriate, a joint airspace management policy to facilitate cross border/FIR boundary operations addressing legal and institutional aspects such as sovereignty, liability, defence, environment, search and rescue and other issues of common interest.

2.11.2 Where appropriate, States should ensure that:

a) the operational requirements for cross-border/FIR boundary operations stemming from the assessment of national airspace structures and ATS route network are defined, to encompass activities conducted by more than one State, within an area established across international borders or entirely within the airspace under the jurisdiction of a State;

b) written agreements are concluded to create a framework for cross border and FIR boundary operations, addressing legal and institutional aspects while respecting sovereignty, defence, environment, search and rescue and other issues of common interest; and

c) a joint concept of operation for cross border activities are drawn up as appropriate to take into account the network effect.

2.11.3 States should:

a) coordinate their airspace management policy with neighbouring States with the objective of harmonising the airspace management and use of airspace in respect of cross border and/or boundaries of flight information regions, taking account of the network effect, and:

b) conduct regular joint assessments and reviews of airspace structures and ATS route network, and their use across national borders and/or the boundaries of flight information regions with the States concerned.

2.11.4 States should, where CBOs are in place, ensure that airspace structures on either side of national borders are coordinated and implemented to provide for the optimum use of the airspace for all users.

2.11.5 States should, within the scope of the framework agreement, ensure that competent agencies, AMCs, ATS and military controlling units negotiate and conclude written agreements defining the CBO process. These agreements should encompass operational and technical aspects and activities conducted by one or more than one State, within an area established across international boundaries or entirely within the airspace under the jurisdiction of one State.

2.11.6 States should jointly define and approve one clear and unambiguous set of separation minima and coordination procedures to be applied between civil and military flights, and

a) define the process for determining, in the case of shared portion of airspace, tactical crossing of routes or tactical crossing of areas airspace reservations; and

b) appoint the unit responsible for separation between transit flights and the users of the active airspace reservation.

- ***ASM Level 2 cross-border operations and coordination***

2.11.7 Where States have agreed on the establishment of CBOs, States should appoint a lead AMC and ensure that the lead, joint or multi-national AMC has the responsibility for airspace management on ASM Level 2 on both sides of the international border.

2.11.8 States should ensure that, where a joint or multinational AMC is established, written agreements are concluded covering relevant operational, technical, procedures and personnel issues, taking into account the following:

a) search and rescue responsibility;

b) ATS procedures and common language;

c) SSR code allocation;

d) type of flight (VFR or IFR);

e) maximum number of participating aircraft;

f) harmonised coordination procedures and flight plan data exchange;

g) communications;

h) air defence notification procedures;

i) common AMC procedures;

j) planning/scheduling procedures, relationship with AMC(s) concerned;

k) activation/de-activation procedures, relationship with ACC(s) concerned;

l) priority rules;

m) ATS occurrences reporting procedures; and

n) environmental issues.

- ***ASM Level 3 cross-border operations and coordination***

2.11.9 States should ensure:

a) application of agreed separation minima between transit flights and the users of the active airspace reservation; and

b) application of the agreed minima for spacing between aircraft inside and outside cross border airspace reservations.

2.11.10 States should ensure:

a) that a common set of procedures to exchange information (and if applicable also the use of a support system) about real time airspace status and its actual use are defined, agreed between ATS units involved, and between them and controlling military units, where cross-border activities take place; and

b) that these common procedures address the safe management of specific traffic situations, including:

- ❖ responsibility and liability;
- ❖ ATC procedures;
- ❖ coordination and phraseology;
- ❖ air defence notification and related control procedures;
- ❖ other operational issues;
- ❖ personnel issues including qualifications and training;
- ❖ technical issues; and
- ❖ contingency plans.

2.11.11 States should further ensure that these common sets of procedures are laid down in written agreements.

CHAPTER 3 - OPERATION OF STATE AIRCRAFT UNDER DUE REGARD

3.1 Operations of State aircraft as described in Circular 330 – General Principles

3.1.1 Article 3 (a) of the Convention expressly excludes State aircraft from its scope of applicability. Articles 3 (b), (c) and (d) further clarify the definition and scope of application of the Articles of the Convention. As a consequence of Article 3, in particular subparagraph 3 (d), States are required to safeguard navigation of civil aircraft when setting rules for their State aircraft. This leaves it up to the individual State to regulate these operations and services, generating a wide diversity of military regulations. However, especially in congested airspace, harmonized regulation is a precondition for a safe, efficient and ecologically sustainable aviation system.

3.1.2 At the same time, States are aware of the limitations of ICAO SARPs and designated Annexes to the Convention, including PANS and regional supplementary procedures (SUPPs), as they relate to State/military aircraft and their services. Indeed, as seen above, Article 3 of the Convention specifically exempts State aircraft from compliance with articles of the Convention.

3.1.3 More and more multinational military operations that cross international boundaries require complex coordination and planning processes to avoid unnecessary segregation or restrictions and to achieve the required level of safety. In light of Article 3 (d) it should be the role of ICAO to support States in harmonizing their State aircraft operations and the respective services in a regional and, ideally, a global context.

3.1.4 In accordance with the Chicago Convention, Article 3 (b), "Aircraft used in military, customs and police services shall be deemed to be State aircraft". In broad terms, the right to access all airspace, within the limits of the operational needs, is a crucial requirement to enable the military, customs and police to perform the security, defence and law enforcement missions mandated by their States and by international agreements. It is, therefore, a fundamental requirement that each State be able to train and operate its State aircraft effectively. In this manner, it is vital for State aircraft to be provided access to sufficient space, enabling adequate opportunities for the training and execution of security, defence and law enforcement elements.

3.1.5 In pursuit of their tasks, operators of State aircraft should, where practicable, respect international, regional and State civil aviation legislation and aim for compliancy. However, it is recognized that the nature of the defence and security tasks can create unique situations that need special handling and considerations. In this regard, Circular 330 chapter 5 explains in detail what roles are performed by military and non-military flights under the title of "State aircraft". It also highlights circumstances when State aircraft can be fully compliant or partially compliant with international civil aviation rules and procedures, as provided for in ICAO SARPs, and it lists the general expectations for handling such aircraft by an air navigation service provider (ANSP).

3.1.6 A number of States and international organisations have regulated the operation of State aircraft and made this information publicly available. The following examples must therefore be seen as a non-exclusive list of sharing best practices and States are encouraged to consider some of these aspects in their individual collaborative assessment.

3.2 The United States example

3.2.1 The U.S. has well documented procedures (both United States Department of Defence side (DoD) and United States Federal Aviation Administration (FAA)) that clearly define the responsibility of State aircraft operating over the High Seas. In this regard, FAA and DoD policies provide for a level of safety that fulfils the U.S. obligations under Article 3 of the Chicago Convention that states there must be "due regard for the safety of navigation of civil aircraft" when flight is not being conducted under ICAO flight procedures.

3.2.2 The FAAO 7110.65 defines DUE REGARD as – a phase of flight wherein an aircraft commander of State-operated aircraft assumes responsibility to separate his/her aircraft from all other aircraft.

3.2.3 The FAAO 7110.65V, Section 6. Oceanic Emergency Procedures, 10-6-3. Alerting Service and Special Assistance, "e." states:

> *"Responsibility to provide alerting service for flight operations conducted under the "due regard" or "operational" prerogative of military aircraft is assumed by the military. When "due regard" operations are scheduled to end with aircraft filed under ICAO procedures, the ACC may, if specified in a letter of agreement, assume responsibility for alerting service at proposed time filed*"

3.2.4 Further, FAAO 7110.65V, Section 2. Terms of Reference, 1-2-1 Word Meaning, "o." states;

> Flight operations in accordance with the options of "due regard" or "operational" obligates the authorized state aircraft commander to:
>
> 1. Separate his/her aircraft from all other air traffic; and
> 2. Assure that an appropriate monitoring agency assumes responsibility for search and rescue actions; and
> 3. Operate under at least one of the following conditions:
>
> a) In visual meteorological conditions (VMC); or
> b) Within radar surveillance and radio communications of a surface radar facility; or
> c) Be equipped with airborne radar that is sufficient to provide separation between his/her aircraft and any other aircraft he/she may be controlling and other aircraft; or
> d) Operate within Class G airspace.
> e) An understanding between the pilot and controller regarding the intent of the pilot and the status of the flight should be arrived at before the aircraft leaves ATC frequency.

3.2.5 For the United States Department of Defence side (DoD), similar/complimentary instructions DoD INSTRUCTION NUMBER 4540.01 - Use of International Airspace by U.S. Military Aircraft and for Missile/Projectile Firings (latest version 02 June 2015) haven been published.

3.3 The North Atlantic Treaty Organisation (NATO) example

3.3.1 Based on the need to consolidate policy guidance with regard to the *status* and the *conduct* of the flights by civil and military aircraft when operating in support of a NATO or NATO-led missions and operations, a specific NATO policy was established in 2015.

3.3.2 In setting the context of this Policy, *"flights operating in support of NATO or NATO-led Missions and Operations"* are defined as the operation of those flights by state and civil aircraft used in support of a NATO or NATO-led operation, as agreed by the North Atlantic Council, and bearing a NATO call sign. A NATO designated call sign may be defined through coordination with relevant national, regional and international aviation bodies associated to the theatre of operation, in order to designate participating state and civil aircraft who shall operate in accordance with the legal framework of such an agreement and designation. Nevertheless, such aircraft will retain the Nationality of their state of registration and will display their nationality marks in international navigation.

3.3.3 While Contracting States have committed to principles of the Chicago Convention, competency to regulate operations of state aircraft remains at exclusive National level. Consequently, aircraft reported in the national military registry are, and always will be, state aircraft, independent from the conduct of the flight. Moreover, a civil aircraft may become state aircraft upon designation by the State of registry.

3.3.4 Allies, as ICAO Contracting States, have developed a national set of rules and procedures to regulate the operations of their state aircraft within their territory, and in the international airspace, in order to safeguard the safety of civil aviation. When operating within the territory of another state, visiting state aircraft will comply with the rules and procedures of that state, as reflected in the special authorisation received (Diplomatic Clearance). Therefore, when outside their state of registration, state aircraft operating under a NATO call sign will comply with the rules and procedures of the state sovereignty over the territory where they operate.

3.3.5 State aircraft operating under NATO call sign within international airspace should comply with following principles, as appropriate:

a) Access to high seas airspace cannot be denied. However, conduct of flight will have to conform, to maximum extent practicable, to ICAO SARPs, as indicated in ICAO Circular 330/AN189.

b) Without prejudice to Articles 3a and 3d of the Chicago Convention, there may be exceptional circumstances when only the notification of the flight would be possible. However, in case of imperative operational necessities* which might preclude this notification, the safety of air navigation shall always be paramount in the conduct of the flight. (* Operational necessities include but are not limited to: equipage restrictions and tactical procedures)

c) In case of absence or suspension of the competent ATS Authority, within the area of operation:

- ✓ Be operated within radar surveillance and under positive control of a surface or airborne radar facility, or
- ✓ Be equipped with airborne radar that is sufficient to provide separation between themselves, aircraft they may be controlling and other aircraft, or
- ✓ Be operated in visual meteorological conditions (VMC).

3.4 The United Kingdom example

3.4.1 The United Kingdom Military Aviation Authority (MAA) is the single independent regulatory body for all Defence aviation activity. As part of the Regulatory Articles the operation of State aircraft in regulated in the (2000 Series, Flying regulations, latest version 1 April 2015)

3.4.2 As part of the Regulatory article 2307, para 71, Due Regard has been defined as: Freedom of the high seas includes the right of aircraft of all nations to use the airspace over the high seas in accordance with the international Law of the Sea Convention of 1958 and 1982 which state that the freedom of the high seas includes the right of military aircraft to use the airspace above those seas without the permission of the Coastal States for over-flight and related military operations. The sovereignty of a nation state extends beyond its land area to the outer limit of its territorial seas. The airspace beyond the territorial sea is considered international airspace, where permission of the coastal state is not required for over flight and related military operations. Where for reasons of military contingencies or routine aircraft carrier operations or other training activities over the high seas, the principles of 'Due Regard' apply.

3.4.3 In addition, the Article 30 of the UK Rules of the Air require the Aircraft Commander to operate in full compliance with defined principles. In international airspace outside the UK Flight Information Region (FIR) and Upper Information Region (UIR), flying not conducted under International Civil Aviation Organization (ICAO) flight procedures should only be carried out under 'Due Regard' (operational prerogative of military aircraft). 'Due Regard' carries a personal responsibility on the part of the Aircraft Commander and/or handling pilot to maintain separation from other aircraft, vessels and objects (such as offshore platforms). In order to ensure an appropriate level of safety, flight under 'Due Regard' should only be conducted outside controlled airspace and subject to one or more of the following conditions:

a) Aircraft should be operated in Visual Meteorological Conditions.

b) Aircraft should be operated within radar surveillance and under positive control of a surface or airborne radar facility.

c) Aircraft should be equipped with airborne radar and qualified operators sufficient to provide separation between themselves and other aircraft.

3.5 The example from France

3.5.1 In order to enable the fulfilment of National Defense missions, France has adopted operational air traffic (OAT) regulations, referred to in France as CAM regulations, applicable to military aircraft. As far as the High Seas are concerned, the corresponding CAM regulations can be found in RCAM/PCAM (CAM procedures), which are available at http://www.dircam.air.defense.gouv.fr/index.php/reglementation-cam/rcam and are also summarized below.

3.5.2 Pursuant to the United Nations Law of the Sea Convention, especially its article 87, States enjoy the freedom to overfly and navigate the High Seas, and exercise this freedom while taking due account of the interests of other States in their exercise of the freedom of the High Seas. Therefore, military overflight activities are free over the High Seas.

3.5.3 A French military aircraft over the High Seas shall have due regard for the safety of other airspace users, in particular of general air traffic (GAT). To this end :

a) The rules that it applies must be compatible with international rules;

b) CAM activities over the High Seas are notified, mission permitting, to the neighbouring States, if possible with a minimum 2 day notice (this notification is by no means a request for authorization);

c) CAM activities should, as far as possible, be organized while taking into account the known or expected general air traffic (GAT) density.

3.5.4 The following CAM rules are implemented over the High Seas:

a) Instrument CAM flights (CAM I)

- Except in exceptional cases, or unless technically impossible, flights are coordinated prior to departure with the units managing the airspace and between the concerned air traffic units ;
- Flights are coordinated on a real time basis between the French military unit responsible for instrument CAM air traffic control and the unit responsible for the airspace. In case of a naval or airborne French military unit which would not have the technical means to perform such coordination, a ground-based station would relay coordination ;
- Coordination procedures may be governed by protocols with the units responsible for managing the airspace ;
- Air traffic control is provided by radar, or equivalent means, by the CAM air traffic unit. Special procedures may be established between concerned air traffic units in order to cater for radio and/or radar failure.

b) Visual CAM flights (CAM V)

- As far as possible, flights are coordinated prior to the air activity with the units responsible for managing the airspace.
- CAM V aircraft apply the military rules defined for this type of air traffic.

3.6 The example from Poland

3.6.1 The Polish military aircraft, when operating in international airspace, do it in compliance with the general rules of the air, set out in Annex 2 to the Convention of the International Civil Aviation Organization (ICAO). When integrated into military exercises or operations, Polish military aircraft apply NATO's operating procedures. Polish military aircraft flights over the high seas, under normal circumstances, are preceded by the flight plan submission to civil authorities responsible for the provision of Air Traffic Services, and are conducted with the transponder set in the on position.

3.6.2 When a particular task requires the aircraft to operate without communication, the flight may be executed after agreement and in coordination with authorities responsible for the provision of Air Traffic Services. In such situations operating unit, will performing the necessary coordination with the civilian ATC, in order to ensure general air traffic operation's safety.

3.6.3 The detailed information and procedures related to planning and conducting military flights in FIR Warszawa are described in MIL AIP Poland.

3.7 The example from Sweden

3.7.1 Over high seas the safety of air navigation shall always be paramount in the conduct of the flight and the Swedish military operate aircraft over high seas in a manner that does not compromise the safety, regularity or efficiency of international civil traffic.

3.7.2 Flying not conducted under ICAO flight procedures is carried out under ´Due Regard´ principles and subject to one or more of the following conditions:

a) Aircraft should be operated in Visual Meteorological conditions

b) Aircraft should be operated within radar surveillance and under positive control of a surface or airborne radar facility

c) Aircraft should be equipped with airborne radar that is sufficient to provide separation between themselves, aircraft they may be controlling and other aircraft

3.8 The example from the Russian Federation

3.8.1 Original Version in Russian language

Приложение
к Приказу
Министра обороны
Российской Федерации
от 24 сентября 2004 г. N 275

ФЕДЕРАЛЬНЫЕ АВИАЦИОННЫЕ ПРАВИЛА
ПРОИЗВОДСТВА ПОЛЕТОВ ГОСУДАРСТВЕННОЙ АВИАЦИИ

I. Общие положения

1. Федеральные авиационные правила производства полетов государственной авиации (далее именуются - Правила) разработаны в соответствии с действующим воздушным законодательством Российской Федерации и нормативными правовыми актами, регулирующими деятельность федеральных органов исполнительной власти и организаций, имеющих подразделения государственной авиации, и определяют порядок производства полетов государственной авиации Российской Федерации (далее именуется - государственная авиация).

2. Настоящие Правила обязательны для выполнения всеми авиационными формированиями федеральных органов исполнительной власти и организаций.

Статьи 3-9

Виды полетов

10. Виды полетов воздушных судов определяются Федеральными авиационными правилами полетов в воздушном пространстве Российской Федерации. Полеты воздушных судов государственной авиации дополнительно подразделяются по назначению, количеству воздушных судов, метеоусловиям.

Статьи 11-18

Обеспечение безопасности полетов

19. Обеспечение безопасности полетов организуется в соответствии с Приказом Министра обороны Российской Федерации от 30 сентября 2002 г. N 390 "Об утверждении Руководства по предотвращению авиационных происшествий с государственными воздушными судами в Российской Федерации" (зарегистрирован в Министерстве юстиции Российской Федерации 11 февраля 2003 г., регистрационный N 4198). Обеспечение безопасности полетов осуществляется всем личным составом государственной авиации.

20. При проведении полетов принцип безопасности их является главным и все усилия личного состава должны быть направлены на его соблюдение.

II. Летный состав, экипаж воздушного судна,
проверки и допуски к полетам

21. К летному составу относятся летчики, штурманы, курсанты (слушатели) летных учебных заведений и другие должностные лица, имеющие соответствующую специальность, годные по медицинскому заключению к летной работе и выполняющие функциональные обязанности в полете в составе экипажа в соответствии с РЛЭ.

Статьи 22-227

Нормы труда и отдыха лиц ГРП

IV. Правила полетов

228. Правила визуальных полетов предусматривают:
выдерживание установленных вертикальных, продольных и боковых интервалов между воздушными судами, а также между воздушными судами и другими материальными объектами в воздухе методом постоянного визуального наблюдения летного экипажа за воздушной обстановкой;
выдерживание высот полета и обход препятствий с визуальным наблюдением за расположенной впереди местностью и световыми ориентирами (при полетах на высотах ниже нижнего эшелона);
выдерживание установленного маршрута (схемы полета) с помощью визуальной ориентировки и с использованием имеющихся навигационных средств.

Статьи 229-234

235. Правила полетов по приборам предусматривают:
выполнение полетов по пилотажно-навигационным приборам;
обеспечение органами, осуществляющими обслуживание воздушного движения и руководство полетами, установленных интервалов эшелонирования между воздушными судами.

Статьи 236-245

V. Производство полетов

246. Производство полетов включает комплекс мероприятий:
организация полетов;
полеты;
разбор полетов.

247. Организация полетов включает:
принятие решения на полеты, постановку задач на полеты руководящим должностным лицам авиационной части, командирам подразделений и командирам частей (подразделений) обеспечения;
планирование полетов;
подготовку к полетам летного состава, лиц ГРП, ИТС, личного состава частей обеспечения, воздушных судов, аэродромов, полигонов, площадок, средств управления и обеспечения полетов;
разведку погоды.

Статьи 248-250

Планирование полетов

251. Штаб авиационной части на основании решения командира проводит мероприятия по организации полетов и осуществляет контроль выполнения отданных распоряжений.
Штаб отрабатывает и направляет в части обеспечения заявки на необходимые силы и средства и подает заявки на использование воздушного пространства, полигонов, площадок и запасных аэродромов. За организацию подачи заявок отвечает начальник штаба части.

Статьи 251-254

Подготовка к полетам летного состава

255. Ни один член летного экипажа, независимо от занимаемой должности, воинского звания и опыта летной работы, не может быть выпущен в полет без необходимой подготовки и проверки его готовности к выполнению полетного задания.

Статьи 256-467

Международные полеты

468. Международные полеты выполняются в соответствии с международными стандартами правил полетов. Допускаются отклонения от правил воздушного движения, связанные со спецификой деятельности государственной авиации, учитывающие при этом обеспечение безопасности полетов.

Статьи 469-547

VI. Управление полетами

Общий порядок управления полетами

548. Управление полетами заключается в передаче экипажам воздушных судов условий полета, команд и информации в процессе выполнения ими полетных заданий. Органы управления полетами, осуществляющие непосредственное управление полетами (воздушным движением), постоянно контролируют соблюдение экипажами заданного режима полета и выполнение подаваемых команд.

Статьи 549-613

VII. Действия экипажа (органов управления полетами) при возникновении особых ситуаций в полете

614. К особым ситуациям в полете относятся:
потеря пространственной ориентировки;
вынужденное покидание воздушного судна;
попадание в метеорологические условия, к полетам в которых экипаж не подготовлен;
потеря ориентировки;
отказ систем и оборудования воздушного судна;
потеря радиосвязи;
внезапное ухудшение состояния здоровья или ранение членов экипажа.

Порядок действий экипажей и органов управления полетами в особых ситуациях, не указанных в Федеральных авиационных правилах полетов в воздушном пространстве Российской Федерации, настоящих Правилах, определяется руководствами по летной эксплуатации (инструкциями экипажу) воздушных судов, руководством по организации работы лиц группы руководства полетами на аэродромах авиации Вооруженных Сил Российской Федерации (документом, ему соответствующим, федерального органа исполнительной власти).

Статьи 615-639

VIII. Обеспечение полетов

640. Обеспечение полетов включает: обеспечение полетов аэронавигационной информацией; штурманское обеспечение; инженерно-авиационное обеспечение; аэродромно-техническое обеспечение; связь и радиотехническое обеспечение; радиолокационное обеспечение; морально-психологическое обеспечение; метеорологическое обеспечение; орнитологическое обеспечение; медицинское обеспечение; поисково-спасательное обеспечение; объективный контроль полетов.

Статьи 641-683

3.8.2 Unofficial translated version in English language

Attachment
To Order No. 275
of the Minister of Defense
of the Russian Federation
dated 24 September 2004

FEDERAL AVIATION REGULATIONS
OF FLIGHT OPERATIONS OF THE STATE AVIATION

I. General

1. Federal Aviation Regulations of flight operations of the state aviation (hereinafter - Regulations) are developed in accordance with the air law in force of the Russian Federation and normative regulations governing the activities of federal executive bodies and organizations with units of state aviation and determine the rules of flight operations of the state aviation of the Russian Federation (hereinafter - State Aviation).

2. These rules are compulsory on all aviation units of federal executive bodies and organizations.

Articles 3-9

Types of flight operations

10. Types of flight operations of aircraft are determined by the federal aviation regulations in the airspace of the Russian Federation. Flights of state aircraft are further subdivided according to destination, the number of aircraft, weather conditions.

Articles 11-18

Safety assurance

19. Safety assurance is organized in accordance with the Order of the Minister of Defense of the Russian Federation dated September 30, 2002, N 390 "On Approval of the Guidelines for the prevention of aviation accidents and incidents involving state aircraft in the Russian Federation" (registered in the Ministry of Justice of the Russian Federation on February 11, 2003, registration N 4198). Safety provisions are ensured by all personnel of the state aircraft.

20. During flight operations the main principle is flight safety and all efforts of the personnel should be focused on its observance.

II. Aircrew, crew of the aircraft,
testing and flight clearances

21. Flight crews include pilots, navigators, cadets (listeners) of flight schools and other officials with the appropriate specialty, fit by a medical report to the flight operations and performing functional responsibilities in flight as a crew member in accordance with the Aircraft Flight Manual (AFM).

Articles 22-227

Norms of work and rest of officials of the Flight Management Group

IV. Flight Rules

228. Visual flight rules include:

maintaining the established vertical, longitudinal and lateral intervals between aircraft and

between aircraft and other tangible objects in the air by a constant visual observation of air situation by the flight crew;
height keeping and obstacle avoidance with a visual observation of the terrain landmarks and lights (when flying at altitudes below the lower level);
maintaining the established route (flight pattern) with the help of visual orientation and using the available navigation aids.
Articles 229-234

235. Instrument flight rules include:
flight operations using navigation instruments;
provision by ATS and ATM services of the established separation intervals between aircraft.
Articles 236-245

V. Flight operations

246. Flight operations include a set of measures:
organization of flights;
flights;
debriefing.

247. Organization of flights includes:
taking decision on flights, posing problems on flights to governing officials of the aviation unit, unit commanders and commanders of units (subunits);
flight planning;
preparation for flights of flight crews, persons of the Flight Management Group, personnel of information and technical support, personnel of support units, aircraft, airports, landfills, areas, facilities management and operations;
weather reconnaissance.
Articles 248-250

Flight planning

251. The headquarters of the aircraft commander on the basis of his decision hold arrangements for organization of flights and monitor control of performance of ordered instructions.
The headquarters work out and send to the parties applications for the necessary forces and means and apply for the use of air space, landfills, areas and alternate aerodromes. The Chief of the headquarters is responsible for the organization of presentation of applications.
Articles 251-254

Flight preparation of aircrew

255. No member of the flight crew, regardless of his position, military rank and experience of flight operations, can be released without the required flight training and test of his readiness to carry out the flight task.
Articles 256-467

International flights

468. International flights are carried out in accordance with international standards of flight rules. Deviations from the rules of air traffic, related to the specific activities of the state aviation, are acceptable, taking into account at the same time provision for safety requirements.
Articles 469-547

VI. Flight management

The general procedure for flight management

548. Flight management consists in transfer to the aircraft crews of flight conditions, instructions and information in the course of performing their flight missions. Air Traffic Control bodies, performing the direct control of the flight (Air Traffic), continuously monitor compliance of the flight crew with the established flight mode and its execution of the given commands.

Articles 549-613

VII. Crew (air traffic control organs) actions in the event of contingency situations in flight

614. Contingency situations in flight include:
Loss of space orientation ;
forced leave the aircraft;
getting into weather conditions of flight for which the crew is not prepared;
loss of orientation;
failure of systems and equipment of the aircraft;
loss of radio communications;
sudden deterioration of health or injury of crew members.

Procedure to follow for aircrews and ATC units in contingency situations, other than those specified in Federal Aviation Regulations for flights in the airspace of the Russian Federation, and in Regulation, shall be determined with the help of flight manuals (instructions to the crew), guidance on the organization of work of the individuals from the group of management of aerodrome operations of Armed Forces of the Russian Federation (or the relevant document of the federal executive body).

Articles 615-639

VIII. Flight operations support

640. Flight operations support include: provision of flight with aeronautical information; navigational software; engineering and aviation software; airfield and technical support; communication and radio engineering support; radar support; moral and psychological support; meteorological services; ornithological support; health care; search and rescue facilities; objective control of operations.

Articles 641-683

3.9 The example from Greece

3.9.1 For the implementation of Article 3 (d) of the Chicago Convention, in order to preserve the safety of navigation of civil aircraft, please be informed that the operations of Hellenic State aircraft in international airspace, comply to the extent practicable with the Rules of the Air in Annex 2 ICAO Convention without exemption. Moreover all flights are coordinated with the Competent Authority responsible for the provision of air traffic services in the area in question.

3.9.2 This coordination procedure is secured by the submission of flight plan to the competent ATS Unit, for any flight conducted under IFR or VFR in all classes of airspace, while maintaining the applicable air-ground voice communication procedure. Furthermore, all flights are conducted with the transponder set in the "on" position.

3.9.3 Additional coordinating procedures are also applied between the competent ATS Unit and the controlling Air Defence Unit, whenever military flights need to be monitored by them.

3.9.4 Military exercises or other activities potentially hazardous to civil aircraft operations are conducted within segregated airspace reserved by the competent ATS authority. The general procedures provided in ICAO Annex 11 for airspace reservation are applied.

3.9.5 Outside ATHINAI FIR/HELLAS UIR all Hellenic State aircraft comply with the applicable rules and procedures issued by the Appropriate ATS Authority, responsible for the provision of air traffic services over the high seas in the area in question.

3.10 The example from Turkey

3.10.1 Stemming from its sovereignty rights and international law, Turkish State/Military aircraft freely navigate in and overfly international airspace. Having said that, Turkey is also fully aware of its responsibilities in ensuring the safe conduct of civil aviation, as stipulated in the Chicago Convention. As such, and as being one of the globally leading countries in civil aviation, Turkey deems flight safety as one of its important priorities. The following aspects are a few examples demonstrating Turkey's diligence in this respect:

3.10.2 All military flights are executed, as much as possible, at an altitude no higher than 10.000 ft, outside areas reserved by NOTAM's and under visibility conditions.

3.10.3 Air Traffic Management (ATM) areas of civilian airports are avoided to the possible extent in training flights. Operational planning is made with an understanding to exclude civilian air corridors and terminal areas as much as possible. In circumstances where cutting an air corridor is unavoidable, this is done in accordance with ICAO standards to complete such cutting in the safest and fastest manner.

3.10.4 In order to issue the appropriate NOTAM, exercise areas are presented to the corresponding country responsible for regulating air traffic therein. Exercises are strictly executed in these areas, even when such a NOTAM is not issued.

3.10.5 Rules and procedures regarding State aircraft mentioned in ICAO Circulars and Manuals are complied with as much as operational necessities permit.

3.10.6 Military aircraft performing "General Air Traffic (GAT)/ICAO compliant" flights via civilian air corridors always submit flight plans.

3.10.7 Turkey has adopted a regulation for the Flexible Use of Airspace (FUA) at the national level and the necessary infrastructure has been installed.

3.10.8 Unless otherwise dictated by operational necessities, all Turkish military aircraft fly, both in national and international airspace, with their transponders switched on, thus allowing civilian radars to spot and track them.

3.10.9 All Turkish military aircraft are equipped with UHF and VHF radios and have the possibility to communicate with Area Control Centers (ACCs) when it is deemed necessary. However, being equipped with such a capability does not construe any obligation for its use or practice. Actually, flying without being obliged to contact ACCs is a fundamental aspect of Freedom of Navigation and Flight, as foreseen by international law.

3.10.10 All Turkish military aircraft are equipped with air radars and can spot civilian aircraft. They are also supported by Control Alert Centers that have additional radar and radio capabilities, which have the possibility to divert Military aircraft from their positions, if necessary.

3.10.11 Turkey has established direct telephone and/or data link lines with Greece, Bulgaria, Ukraine and Georgia for immediate exchange of information regarding flight safety.

3.10.12 Even if all technical capabilities indicate otherwise, Turkish military pilots have always the right to abort their missions without receiving any orders, should they deem it necessary for the overall flight safety.

3.11 The example from Denmark

3.11.1 Freedom of the high seas includes the right of aircraft of all nations to use the airspace over the high seas in accordance with the international Law of the Sea Convention of 1958 and 1982. The Conventions state that the freedom of the high seas includes the right of state aircraft including military aircraft to use the air space.

3.11.2 Air space beyond the territorial sea of a nation state is considered international air space, where permission of the coastal state is not required for over flight and related military operations. The principles of 'Due Regard' apply for military contingencies, routine aircraft operations or other training activities over the high seas.

3.11.3 All Danish state aircraft (military aircraft) operating in international air space "Due Regard" will under normal circumstances operate in accordance with the general rules of the air, set out in Annex 2 to the Convention of the International Civil Aviation Organization (ICAO).

3.11.4 Danish military aircraft flights over the high seas are, under normal circumstances, preceded by a flight plan. The flight plan is submitted to all civil Air Navigation Service Providers responsible for the provision of Air Traffic Services within the area of operations. The flights are generally conducted with an activated transponder.

3.11.5 Danish military aircraft operations over the high seas without an activated transponder will be monitored and supported by a military Aircraft Controlling Unit, Military Air Traffic Control/Service Unit or conducted under Visual Flight Rules in Visual Meteorological Conditions. Prior to execution the flights will be coordinated with the national civil/military Area Control Centre using a flight plan and/or direct coordination in order to ensure safe conduct of operation.

3.11.6 Danish military Quick Reaction Alert aircraft flights are conducted with an activated transponder. The Quick Reaction Alert aircraft are under tactical control by a Danish military Aircraft Controlling Unit (ACU) at all times. The military Aircraft Controlling Unit (ACU) maintains two-way radio contact with the aircraft and provides traffic information and control in accordance with national regulations.

3.12 The example from Finland

3.12.1 In Finland, air navigation service is fully integrated. Within this integrated system the civilian service provider is responsible for both civil and military air traffic. The military does not have a role in air navigation service provision as such. The Military Aviation Authority (MAA) and Air Force Command regulate military aviation in cooperation with the Civil Aviation Authority "Trafi" (acting as NSA Finland).

3.12.2 In practice this means that all military traffic is coordinated with air traffic control (ANSP) and ICAO principles of separation are applied for the majority of operations.

3.12.3 If operations are conducted under "Due Regard" one or more of the following principles apply:

a) All flights are coordinated with airport air traffic control and an area control center.

b) Flights are controlled by ATC or a CRC (fighter controller). If responsibility for de-confliction is given to a CRC, adequate separation to civil air traffic is maintained (usually 10NM or 2000ft).

c) The SSR transponder can be activated (mode 3 A/C) and flight coordinated with neighboring FIRs if the execution of the mission is not compromised.

3.13 As indicated at the BSPT/03 meeting, additional examples are expected to be included from Germany, or any other additional State

EUROCONTROL has developed the European Route Network Improvement Plan – Part 3 – Airspace Management Guidelines - The Airspace Management Handbook (ASM) Handbook.

- The purpose of the ASM Handbook is to provide additional descriptions of the ASM functions and Air Traffic Management (ATM) related processes and procedures, complementary to the provisions of the EUROCONTROL Specification for the Application of the Flexible Use of Airspace (FUA), that are required to apply and exploit the Flexible Use of Airspace Concept. It is in response to the COMMISSION REGULATION (EU) No 677/2011 of 7 July 2011 (laying down the detailed rules for the implementation of air traffic management (ATM) network functions and amending Regulation (EU) No 691/2010).

- The ASM Handbook complements the EUROCONTROL Strategies and Specifications insofar as they relate to or have an influence on the flexible use of airspace. It describes the FUA concept and structure, providing guidance material in the form of processes, procedures and best practice in order to assist States in their organisation and operation of the Flexible Use of Airspace throughout the ECAC area. It can be downloaded via **http://www.eurocontrol.int/publications/european-route-network-improvement-plan-ernip-part-3-airspace-management-handbook**