As a Member of the European Union, SES Regulations are binding and directly applicable to Bulgaria.


For Bulgaria, Name, title TILKO P E T R O V DIRECTOR GENERAL DG CAA Signature Date 03.12.2009

Chapter 15 - Annual Report on the Application of FUA

15.1 National organisation and responsibilities at the 3 levels of FUA

15.1.1 At Strategic Airspace Management Level 1

<table>
<thead>
<tr>
<th>FUA Level 1 Implemented:</th>
<th>Y</th>
<th>The State has established appropriate FUA Level 1 mechanisms, e.g. High Level Airspace Policy Body:</th>
<th>Y</th>
<th>Airspace Management Board (AMB)</th>
</tr>
</thead>
</table>

Flexible Use of Airspace (FUA) concept has been fully implemented in Bulgaria. The amended Order No.19 has been aligned with EC regulation 2150/2005. FUA levels 1/2/3 have been achieved. The FUA strategic Level is implemented by an Airspace Management Board.

<table>
<thead>
<tr>
<th>Measures established to ensure consistency between:</th>
<th>- ASM and ATFM:</th>
<th>Ensured via flight planning, CFMU terminal, Airspace Use Plan (AUP) and Updated Airspace Use Plan (UUP)</th>
<th>- ASM and ATS:</th>
<th>ATS units act accordingly to ASM/ATFM co-ordination</th>
</tr>
</thead>
</table>

The State has notified the Commission the identified persons/organisations responsible for all the tasks listed in Art. 4.1 of the FUA Regulation: Y Date and Reference of the Communication: 2007 Annual report on the application of FUA in Bulgaria

The State has ensured that the following tasks related to ASM Level 1 are performed by the responsible body (referred to above):

- Regularly review and address users' requirements Y
- The regular meetings of AM3 address the user requirements, via a continuous adaptation of CDRs
- Approve activities which require airspace reservation or restriction Y
- AMB defines the rules for the airspace reservation according to the regulation NO.19 article 6.6
- Define temporary airspace structures and procedures to offer multiple airspace reservation and route options Y
- AMB defines the limits of TSAs and CDRs.
- Establish criteria and procedures providing for the creation and use of adjustable lateral and vertical limits of the airspace N

It is planned by 2010 to replace TSAs with TRAs and adopt the modular THA activation in accordance with military requirements.
- Assess the national airspace structures and route network with the aim of planning for flexible airspace structures and procedures

Once per year, BULATSA conduct an assessment of national Airspace structure and route network. The proposals are sent to the military authorities for approval in accordance with the provisions of regulation No.19. When the proposed modifications are agreed, the instruction No.24 is amended.

- Define specific conditions under which the responsibility for separation between civil and military flights rests on the ATS units or on the controlling military units

Planned for 2010 when TSAs will be transformed in TRAs, the modular TRA will be implemented and relevant instruction will be updated.

- Establish mechanisms to assess performance of FUA operations

BULATSA annually assess the CDR utilisation rate and TSA activation rate.

- Based on the outcome of this assessment, periodically review and revise as necessary, airspace procedures

Adaptation of relevant regulations/instructions

- Establish mechanisms to archive data on the requests, allocation and actual use of airspace structures for further analysis and planning activities

The automated system (CFIS) is used to archive data concerning the airspace allocation and requests.

### Apart from Danger Areas over the High Seas and Prohibited areas, the State has abandoned application of permanent airspace restrictions:

<table>
<thead>
<tr>
<th>Apart from Danger Areas over the High Seas and Prohibited areas, the State has abandoned application of permanent airspace restrictions:</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danger areas are considered as permanent airspace restrictions. Some of them are manageable, but not all of them. The ministry of Transport, IT and Communications plans to constitute a working group which will assess the application of airspace restrictions with Bulgaria and propose modifications/update of existing arrangements.</td>
<td></td>
</tr>
</tbody>
</table>

**Changes since previous FUA Report:** None

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### 15.1.2 At Pre-tactical Airspace Management Level 2

<table>
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<tr>
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<tbody>
<tr>
<td>The pre-tactical level has been implemented by an Airspace Management Cell.</td>
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</tbody>
</table>

The airspace is allocated in accordance with the conditions and procedures defined in Article 4.1:

| The established AMC (referred to above) is provided with adequate dedicated ASM supporting systems to perform and communicate the pre-tactical airspace management tasks: | Y |
| CFMU terminal and CFIS module |

**Changes since previous FUA Report:** None
15.1.3 At Tactical Airspace Management Level 3

| FUA Level 3 Implemented: | Y | The tactical level is implemented by the civil and military ATS authorities. |

The State has ensured that the relevant ATS Units and controlling military units:

- establish coordination procedures and communication facilities to allow the real-time activation, deactivation or reallocation of airspace allocated at pre-tactical level:  
  - The co-ordination procedures are contained in the instruction No.25. The real time TSA activation and deactivation has been achieved while the real-time TSA re-allocation is planned for 2010.

- establish coordination procedures to ensure the timely and effective exchange of any modification of planned airspace reservations and the adequate notification to all affected users:  
  - Instruction No.25 defines the co-ordination procedure for the modifications of planned airspace reservations. The notification is done by phone.

- establish coordination procedures and supporting systems to ensure safety when managing interactions between civil and military flights:  
  - Military ATS unit integrated in CNATCC the safety of Air Traffic management between civil and military flights by using the same ATS/COM system as civilian ATCOS.

- establish coordination procedures to permit direct communication of relevant information to resolve specific traffic situations where civil and military controllers are providing services in the same airspace:  
  - Specifically:
    - Position of aircraft: Direct voice communication is ensured between CNATCC and Military Airbases
    - Flight intention of aircraft (e.g. exchange of Flight Plan data): Military ATS units within CNATCC are equipped with full view of aircraft planned trajectory as well as with the advanced features of crossing intention and crossing request

All airspace reservations are released as soon as activities having caused their establishment cease:

The Instruction No.25 defines the modality that the military airbases notifies the airspace co-ordination centre concerning the release of airspace reservations and this centre notify all airspace users

Changes since previous FUA Report: None

15.2 Cooperation between Member States at the 3 levels of FUA

15.2.1 At Strategic Airspace Management Level 1

| The State coordinates its airspace management policy with the respective States to jointly address the use of cross-border airspace structures: | N | No OPS needs exist |
Type(s) of cross-border airspace use is applied in the State:

<table>
<thead>
<tr>
<th>Cross-border area</th>
<th>N</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared reserved airspace (TRA and TSA)</td>
<td>N</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Conditional routes</td>
<td>N</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

The State has established with neighbouring States one common set of standards for separations between civil and military flights for cross-border activities: N Not Planned

Changes since previous FUA Report: None

15.2.2 At Pre-tactical Airspace Management Level 2

If cross-border operations apply, has the State established a joint or multinational AMC with neighbouring State(s): N No OPS needs exist

Changes since previous FUA Report: None

15.2.3 At Tactical Airspace Management Level 3

The State has established a common set of procedures to manage specific traffic situations and/or to enhance the real-time airspace management between civil and military units involved in or concerned with cross-border activities: N No OPS needs exist

Changes since previous FUA Report: None.

15.3 Safety assessment

The State has established a safety management process to conduct all safety assessment activities before the introduction of any changes to the operations of the FUA: Y Defined in the Safety manual and Safety Procedures in case of major changes of ATM system (including FUA). Due to the fact that no major changes of FUA application have been initiated till now, the Safety Assessment concerning FUA application in Bulgaria has not been conducted.

15.4 Performance assessment

<table>
<thead>
<tr>
<th>Evaluation of the functioning of agreements, procedures and supporting systems established at the 3 levels</th>
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</thead>
<tbody>
<tr>
<td>Safety</td>
</tr>
<tr>
<td>Airspace capacity</td>
</tr>
<tr>
<td>Efficiency</td>
</tr>
<tr>
<td>Flexibility</td>
</tr>
</tbody>
</table>

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15.5 Compliance monitoring

The State is fully compliant with the FUA Regulation (EC Regulation 2150/2005):

In order to achieve a full compliance with the FUA regulation, there is a need for a revision of Regulation No.19 planned for 2010.

The major areas of improvements are:

- The Strategic airspace management is not fully covered by the existing Regulation No.19
- The provisions concerning the Safety assessment, hazard identification and risk/assessment mitigation before an introduction of change in FUA structure are not yet established in the Regulation No.19
- The procedures concerning the direct communication between Civil and Military ATS units to be established
- FUA compliance monitoring mechanism to be established.

The State has established a FUA compliance monitoring processes: [Annex]

FUA compliance monitoring is part of NSA safety audit. This year, DGCAA assessed the FUA pre-tactical level and the auditing report has been produced. Anyhow, there is a need for improvements in the area of FUA monitoring process description to be covered by NSA’s auditing handbook and the Manual of NSA operation.

Additional comments:

15.6 Problems encountered and need for changes

Problems encountered in the implementation of the FUA regulation and need for changes:

The DCMAC report related to the FUA application in Bulgaria has been delivered. This report addresses the required modifications in the national legislation in order to achieve a full compliance with EC regulations. The recommendations of this report are required to be reflected in the modifications of Regulation No.19 and Instructions No 24/25.