

**GEN 1.5 Aircraft Instruments, Equipment and Flight Documents****1. General**

1.1 Aircraft operating within Danish territory must adhere to the provisions of ICAO Annex 6 and ICAO Regional Supplementary Procedures Document 7030/4.

**2. Special Equipment to be Carried**

2.1 An operator shall not operate an aircraft in København FIR unless the aircraft radio equipment has the 8.33 KHZ channel spacing capability (see exemptions in ENR 1.8).

**3. Basic RNAV Equipment. Requirement for IFR Operations**

3.1 All aircraft - other than State aircraft - operating IFR above FL 95 in controlled air space in København FIR and Copenhagen Area shall be equipped with RNAV equipment (RNP5).

3.2 The RNAV equipment must be installed, approved and operated in accordance with the latest edition of the AMC 20-4A Airworthiness Approval and Operational Criteria For the Use of Navigation Systems in European Airspace Designated For Basic RNAV Operations.

3.3 IFR flights without RNAV equipment may take place below FL 95, unless the affected ATS-route is designated for RNAV use only.

3.4 Within the area in the North Sea bounded by 57 00N 0500 E - 5700N 07 00E - 55 00N 07 00E - 55 00N 05 00E - 57 00N 05 00E, there is insufficient coverage from VOR and/or DME facilities to fulfill RNAV (RNP5). Radar service may be expected within this area.

3.5 In Helicopter Routes Basic RNAV or RNAV 1 shall be used when prescribed (see ENR 3.2).

3.6 In case of failure of ground based navigation aids (VOR/DME) or failure of the airborne RNAV system, ATC will, as far as possible, provide navigation assistance on request.

3.7 In case of failure of an airborne RNAV system before departure, individual flights in København FIR and Copenhagen Area, may be exempted by København ACC.

**4. Precision RNAV (P-RNAV) Equipment**

4.1 For specific operations based on P-RNAV, the aircraft is to be equipped in accordance with the requirements of JAA TGL 10, or equivalent. Operators intending to use the P-RNAV procedures must possess specific operational approval from the appropriate State authority.

**5. RVSM Airspace. Requirements**

5.1 Except for designated airspace where RVSM transition tasks are carried out, only RVSM approved aircraft and non-RVSM approved State aircraft shall be permitted to operate within the RVSM airspace.

5.2 RVSM approved aircraft are those aircraft for which the operator has obtained an RVSM approval, either from the State in which the operator is based, or from the State in which the aircraft is registered.

5.3 Guidance material on the airworthiness, continued airworthiness and the operational practices and procedures for the EUR RVSM airspace is provided in the Joint Aviation Authorities (JAA) Temporary Guidance Leaflet (TGL) Number 6, Revision 1, and the ICAO EUR Regional Supplementary Procedures (Doc 7030/4-EUR).

5.4 Except for State aircraft, RVSM approval is required for aircraft to operate in the RVSM airspace within København FIR, described in ENR 2.1

*Note: The provisions applicable to non-RVSM approved civil operations in the RVSM airspace where RVSM transition tasks are carried out are as specified in the ICAO EUR Regional Supplementary Procedures (Doc 7030/4 - EUR).*

**6. VFR Flights. SSR Transponder Requirement**

6.1 Aircraft performing VFR flights within ATS Airspace Class C and VFR flights at night within Airspace Class D, E and G at and

above 3000 ft MSL shall be equipped with SSR-transponder with 4096 codes in mode A/3 and mode C with automatic transmission of pressure altitude information (Ref. ICAO Annex 10).

6.2 Exemption from the requirements mentioned above may for individual flights be granted by the appropriate ATC unit.

For gliding within Copenhagen Area, see also ENR 5.5

**7. Guarding of the VHF Emergency Frequency 121.500 MHZ**

7.1 Aircraft flying over the North Sea and Skagerrak within København FIR, shall continuously guard the VHF emergency frequency 121.500 MHZ, except for such periods when the aircraft is carrying out communication on other VHF frequencies, or when airborne equipment limitations or cockpit duties do not permit simultaneous guarding of two frequencies.

**8. Operation of Non-FM immune State Aircraft VHF COM Receivers (118-137 MHz)**

8.1 The compliance date is postponed until new equipment, meeting the operational requirements for 8.33 kHz channel spacing, is installed.

**9. VHF VOR/LOC Receivers (108-118 MHz) IFR operations in Denmark**

9.1 For En Route Operations:

State aircraft with non-FM interference immune VOR equipment, may operate IFR en route within Copenhagen FIR, Denmark, provided that:

- Equipment are properly identified to the crew as "non-FM interference immune".
- Aircraft are equipped with TACAN.
- Aircraft are suitably equipped and certified in order to meet RNP/5 requirement without the use of VOR, ref. ICAO SUPPS-Doc 7030/EUR/RAC.
- The planned flight will not require use of non-compliant VOR equipment for en route flight to the destination aerodrome or alternative aerodromes.

9.2 For TMA Operations:

State aircraft with non-FM interference immune VOR/ILS equipment, shall restrict their operations in Rønne TMA and TMA's within Copenhagen FIR to VMC, or, to aerodromes with approved and published procedures for NDB, PAR, Aerodrome Surveillance Radar/ASR or TACAN approach.

**10. Special operational requirements for Danish registered aircraft not operating on an AOC**

10.1 In addition to the ICAO Annex 6 requirements the Danish Regulation for Civil Aviation BL 1-12 requires the following:

1. "Fasten seat belt while seated" placard in front of each passenger in aeroplanes and helicopters.
2. Type of fuel and the amount of usable fuels shall be marked at each refuelling point/station in aeroplanes, helicopters and powered sailplanes.

**11. Accommodation of State Aircraft operating without Mode S ELS, Mode S EHS and ADS-B out**

11.1 State aircraft that are operating without Mode S ELS, Mode S EHS or ADS-B out for technical or operational reasons, will be accommodated by Danish ANSPs through traditional surveillance methods such as Mode 3/A/C/S. The flight plan shall include in item 18 the indicators SUR/EUADSBX, SUR/EUEHSX, SUR/EUELSX or a combination thereof.