b) Medical supplies should comprise one or more first-aid kits.

Note.— Guidance on the types, number, location and contents of the medical supplies is given in FOR(A) Appendix 4, Medical Supplies

c) a safety harness for each flight crew seat. The safety harness for each pilot seat shall incorporate a device which will automatically restrain the occupant's torso in the event of rapid deceleration;

d) RESERVED

e) means of ensuring that the following information and instructions are conveyed to passengers:

1) when seat belts are to be fastened;
2) when and how oxygen equipment is to be used if the carriage of oxygen is required;
3) restrictions on smoking;
4) location and use of life jackets or equivalent individual flotation devices where their carriage is required;
5) location of emergency equipment; and
6) location and method of opening emergency exits.

3.6.2.2 An aeroplane shall carry:

a) the operations manual prescribed in 3.4.2.2, or those parts of it that pertain to flight operations;
b) the flight manual for the aeroplane, or other documents containing performance data required for the application of Chapter 3.5 and any other information necessary for the operation of the aeroplane within the terms of its certificate of airworthiness, unless these data are available in the operations manual; and
c) the checklists to which 3.4.2.5 refers.

3.6.3 Flight recorders

3.6.3.1 Flight data recorders

3.6.3.1.1 Operation

3.6.3.1.1.1 All aeroplanes of a maximum certificated take-off mass of over 5 700 kg for which the individual certificate of airworthiness is first issued on or after 1 January 2005 shall be equipped with a Type IA FDR.

3.6.3.1.1.2 All aeroplanes of a maximum certificated take-off mass of over 27 000 kg for which the individual certificate of airworthiness is first issued on or after 1 January 1989 shall be equipped with a Type I FDR.

3.6.3.1.1.3 RESERVED

3.6.3.2 Cockpit voice recorders

3.6.3.2.1 Operation

3.6.3.2.1.1 All turbine-engined aeroplanes of a maximum certificated take-off mass of over 5 700 kg for which the application for type certification is submitted to a Contracting State on or after 1 January 2016 and required to be operated bymore than one pilot shall be equipped with a CVR.

3.6.3.2.1.2 All aeroplanes of a maximum certificated take-off mass of over 27 000 kg for which the individual certificate of airworthiness is first issued on or after 1 January 1987 shall be equipped with a CVR.

3.6.3.2.1.3 RESERVED

3.6.3.3 Combination recorders

RESERVED

3.6.3.4 Aeroplanes on long-range over-water flights

3.6.3.4.1 The operator of an aeroplane operated on an extended flight over water shall determine the risks to survival of the occupants of the aeroplane in the event of a ditching. The operator shall take into account the operating environment and conditions such as, but not limited to, sea state and sea and air temperatures, the distance from land suitable for making an emergency landing, and the availability of search and rescue facilities. Based upon the assessment of these risks, the operator shall, in addition to the equipment required in 2.4.4.3, ensure that the aeroplane is appropriately equipped with:

a) life-saving rafts in sufficient numbers to carry all persons on board, stowed so as to facilitate their ready use in emergency, provided with such lifesaving equipment, including means of sustaining life, as is appropriate to theflight to be undertaken; and

b) equipment for making the distress signals described in ICAO Annex 2.

3.6.3.4.2 Each life jacket and equivalent individual flotation device, when carried in accordance with 2.4.4.3, shall be equipped with a means of electric illumination for the purpose of facilitating the location of persons, except where the requirement of 2.4.4.3.1 is met by the provision of individual flotation devices other than life jackets.

3.6.3.5 Aeroplanes for which the individual certificate of air worthinesswas first issued before 1 January 1990:

3.6.3.5.1 Pressurized aeroplanes intended to be operated at flight altitudes at which the atmospheric pressure is less than 376 hPa shall be equipped with a device to provide positive warning to the flight crew of any dangerous loss of pressurization.

3.6.3.5.2 An aeroplane intended to be operated at flight altitudes at which the atmospheric pressure is less than 700 hPain personnel compartments shall be equipped with oxygen storage and dispensing apparatus capable of storing and dispensing the oxygen supplies required in 3.4.3.9.1.

3.6.3.5.3 An aeroplane intended to be o0perated at flight altitudes at which the atmospheric pressure is less than 700 hPabut which is provided with means of maintaining pressures greater than 700 hPa in personnel compartments shall be provided with oxygen storage and dispensing apparatus capable of storing and dispensing the oxygen supplies required in 3.4.3.9.2.

3.6.4 Aeroplanes in icing conditions

Aeroplanes shall be equipped with suitable de-icing and/or anti-icing devices when operated in circumstances in which icing conditions are reported to exist or are expected to be encountered.

3.6.5 Aeroplanes operated in accordance with the instrument flight rules

3.6.5.1 In addition to the requirements contained in 2.4.7, aeroplanes when operated in accordance with the instrument flight rules, or when the aeroplane cannot be maintained in a desired attitude without reference to one or more flight instruments, shall be equipped with two independent altitude measuring and display systems.

3.6.5.2 Aeroplanes over 5 700 kg — Emergency power supply for electrically operated attitude indicating instruments

3.6.5.2.1 Aeroplanes of a maximum certificated take-off mass of over 5 700 kg newly introduced into service after1 January 1975 shall be fitted with an emergency power supply, independent of the main electrical generating system, for the purpose of operating and illuminating, for a minimum period of 30 minutes, an attitude indicating instrument (artificial horizon), clearly visible to the pilot-in-command. The emergency power supply shall be automatically operative after the total failure of the main electrical generating system and clear indication shall be given on the instrument panel that the attitude indicator(s) is being operated by emergency power.

3.6.5.2.2 Aircraft with advanced cockpit automation systems (glass cockpits) should have system redundancy that provides the flight crew with attitude, heading, airspeed and altitude indications in case of failure of the primary system or display.

3.6.5.2.3 Instruments that are used by any one pilot shall be so arranged as to permit the pilot to see their indicationsreadily from his or her station, with the minimum practicable deviation from the position and line of vision normally assumed when looking forward along the flight path.

3.6.6 Pressurized aeroplanes when carrying passengers —weather-detecting equipment

Pressurized aeroplanes when carrying passengers shall be equipped with operative weather-detecting equipment capable of detecting thunderstorms whenever such aeroplanes are being operated in areas where such conditions may be expected to exist along the route either at night or under instrument meteorological conditions.

3.6.7 Aeroplanes operated above 15 000 m (49 000 ft) —radiation indicator

RESERVED

3.6.8Aeroplanes carrying passengers — cabin crew seats

3.6.8.1 Aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 1981: Aeroplanes shall be equipped with a forward or rearward facing seat (within 15 degrees of the longitudinal axis of the aeroplane), fitted with a safety harness for the use of each cabin crew member required to satisfy the intent of 3.12.1 inrespect of emergency evacuation.

3.6.8.2 Aeroplanes for which the individual certificate of airworthiness was first issued before 1 January 1981

3.6.8.2.1 Aeroplanes should be equipped with a forward or rearward facing seat (within 15degrees of the longitudinal axis of the aeroplane), fitted with a safety harness for the use of each cabin crew member required to satisfy the intent of 3.12.1 in respect of emergency evacuation.

Note.— Safety harness includes shoulder straps and a seat belt which may be used independently.

3.6.8.2.2 Cabin crew seats provided in accordance with 3.6.9.1 or 3.6.9.2.1 shall be located near floor level and other emergency exits as required by the State of Registry for emergency evacuation.

3.6.9 Aeroplanes required to be equipped with an airborne collision avoidance system (ACAS)

3.6.9.1 RESERVED

3.6.9.2 All turbine-engined aeroplanes of a maximum certificated take-off mass in excess of 15 000 kg or authorized to carry more than 30 passengers, for which the individual airworthiness certificate is first issued after 1 January 2007, shall be equipped with an airborne collision avoidance system (ACAS II).

3.6.9.3 RESERVED

3.6.10 Aeroplanes required to be equipped with a pressure-altitude reporting transponder

Aeroplanes shall be equipped with a pressure-altitude reporting transponder which operates in accordance with the relevant provisions of ICAO Annex 10, Volume IV.

Note.— This provision is intended to improve the effectiveness of air traffic services as well as airborne collision avoidance systems.

3.6.11 Microphones

All flight crew members required to be on flight deck duty shall communicate through boom or throat microphones below the transition level/altitude.

3.6.12 Aeroplanes equipped with automatic landing systems, a head-up display (HUD) or equivalent displays, enhanced vision systems (EVS), synthetic vision systems (SVS) and/or combined vision systems (CVS)

3.6.12.1 Where aeroplanes are equipped with automatic landing systems, a HUD or equivalent displays, or EVS, SVS or CVS, or any combination of those systems into a hybrid system, the use of such systems for the safe operation of an aeroplane shall be approved by the DG, CAAN .

Note.— Information regarding a HUD or equivalent displays, including references to RTCA and EUROCAE documents, is contained in the Manual of All-Weather Operations *(Doc 9365).*

3.6.12.2 In approving the operational use of automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS, the DG, CAAN shall ensure that:

a) the equipment meets the appropriate airworthiness certification requirements;

b) the operator has carried out a safety risk assessment associated with the operations supported by the automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS;

c) the operator has established and documented the procedures for the use of, and training requirements for, automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS.

Note 1.— Guidance on safety risk assessments is contained in the Safety Management Manual (SMM) *(Doc 9859).*

Note 2.— Guidance on operational approvals is contained in Attachment 2.B.