ANNEX I

Essential requirements for airworthiness referred to in Article 5

1. Product integrity: product integrity must be assured for all anticipated flight conditions for the operational life of the aircraft. Compliance with all requirements must be shown by assessment or analysis, supported, where necessary, by tests.

1.a. Structures and materials: the integrity of the structure must be ensured throughout, and sufficiently beyond, the operational envelope for the aircraft, including its propulsion system, and maintained for the operational life of the aircraft.

1.a.1. All parts of the aircraft, the failure of which could reduce the structural integrity, must comply with the following conditions without detrimental deformation or failure. This includes all items of significant mass and their means of restraint.

1.a.1.a. All combinations of load reasonably expected to occur within, and sufficiently beyond, the weights, centre of gravity range, operational envelope and life of the aircraft must be considered. This includes loads due to gusts, manoeuvres, pressurisation, movable surfaces, control and propulsion systems both in flight and on the ground.

1.a.1.b. Consideration must be given to the loads and likely failures induced by emergency landings either on land or water.

1.a.1.c. Dynamic effects must be covered in the structural response to these loads.

1.a.2. The aircraft must be free from any aeroelastic instability and excessive vibration.

1.a.3. The manufacturing processes and materials used in the construction of the aircraft must result in known and reproducible structural properties. Any changes in material performance related to the operational environment must be accounted for.

1.a.4. The effects of cyclic loading, environmental degradation, accidental and discrete source damage must not reduce the structural integrity below an acceptable residual strength level. All necessary instructions for ensuring continued airworthiness in this regard must be promulgated.

1.b. Propulsion: the integrity of the propulsion system (i.e. engine and, where appropriate, propeller) must be demonstrated throughout, and sufficiently beyond, the operational envelope of the propulsion system and must be maintained for the operational life of the propulsion system.

1.b.1. The propulsion system must produce, within its stated limits, the thrust or power demanded of it at all required flight conditions, taking into account environmental effects and conditions.

1.b.2. The fabrication process and materials used in the construction of the propulsion system must result in known and reproducible structural behaviour. Any changes in material performance related to the operational environment must be accounted for.

1.b.3. The effects of cyclic loading, environmental and operational degradation and likely subsequent part failures must not reduce the integrity of the propulsion system below acceptable levels. All necessary instructions for ensuring continued airworthiness in this regard must be promulgated.

1.b.4. All necessary instructions, information and requirements for the safe and correct interface between the propulsion system and the aircraft must be promulgated.

1.c. Systems and equipment

1.c.1. The aircraft must not have design features or details that experience has shown to be hazardous.

1.c.2. The aircraft, including those systems, equipment and appliances required for type-certification, or by operating rules, must function as intended under any foreseeable operating conditions, throughout, and sufficiently beyond, the operational envelope of the aircraft, taking due account of the system, equipment or appliance operating environment. Other systems, equipment and appliance not required for type-certification, or by operating rules, whether functioning properly or improperly, must not reduce safety and must not adversely affect the proper functioning of any other system, equipment or appliance. Systems, equipment and appliances must be operable without needing exceptional skill or strength.

1.c.3. The aircraft systems, equipment and associated appliances, considered separately and in relation to each other, must be designed such that any catastrophic failure condition does not result from a single failure not shown to be extremely improbable and an inverse relationship must exist between the probability of a failure condition and the severity of its effect on the aircraft and its occupants. With respect to the single failure criterion above, it is accepted that due allowance must be made for the size and broad configuration of the aircraft and that this may prevent this single failure criterion from being met for some parts and some systems on helicopters and small aeroplanes.

1.c.4. Information needed for the safe conduct of the flight and information concerning unsafe conditions must be provided to the crew, or maintenance personnel, as appropriate, in a clear, consistent and unambiguous manner. Systems, equipment and controls, including signs and announcements must be designed and located to minimise errors which could contribute to the creation of hazards.

1.c.5. Design precautions must be taken to minimise the hazards to the aircraft and occupants from reasonably probable threats, both inside and external to the aircraft, including protecting against the possibility of a significant failure in, or disruption of, any aircraft appliance.

1.d. Continuing airworthiness

1.d.1. Instructions for continuing airworthiness must be established to ensure that the aircraft type certification airworthiness standard is maintained throughout the operational life of the aircraft.

1.d.2. Means must be provided to allow inspection, adjustment, lubrication, removal or replacement of parts and appliances as necessary for continuing airworthiness.

1.d.3. The instructions for continuing airworthiness must be in the form of a manual, or manuals, as appropriate for the quantity of data to be provided. The manuals must cover maintenance and repair instructions, servicing information, trouble-shooting and inspection procedures, in a format that provides for a practical arrangement.

1.d.4. The instructions for continuing airworthiness must contain airworthiness limitations that set forth each mandatory replacement time, inspection interval and related inspection procedure.

2. Airworthiness aspects of product operation

2.a. The following must be shown to have been addressed to ensure a satisfactory level of safety for those onboard or on the ground during the operation of the product:

2.a.1. The kinds of operation for which the aircraft is approved must be established and limitations and information necessary for safe operation, including environmental limitations and performance, must be established.

2.a.2. The aircraft must be safely controllable and manoeuvrable under all anticipated operating conditions including following the failure of one or, if appropriate, more propulsion systems. Due account must be taken of pilot strength, flight deck environment, pilot workload and other human-factor considerations and of the phase of flight and its duration.

2.a.3. It must be possible to make a smooth transition from one flight phase to another without requiring exceptional piloting skill, alertness, strength or workload under any probable operating condition.

2.a.4. The aircraft must have such stability as to ensure that the demands made on the pilot are not excessive taking into account the phase of flight and its duration.

2.a.5. Procedures for normal operations, failure and emergency conditions must be established.

2.a.6. Warnings, or other deterrents intended to prevent exceedance of the normal flight envelope, must be provided, as appropriate to type.

2.a.7. The characteristics of the aircraft and its systems must allow a safe return from extremes of the flight envelope that may be encountered.

2.b. The operating limitations and other information necessary for safe operation must be made available to the crew members.

2.c. Product operations must be protected from hazards resulting from adverse external and internal conditions, including environmental conditions.

2.c.1. In particular, no unsafe condition must occur from exposure to phenomena such as, but not limited to, adverse weather, lightning, bird strike, high frequency radiated fields, ozone, etc., reasonably expected to occur during product operation.

2.c.2. Cabin compartments must provide passengers with suitable transport conditions and adequate protection from any expected hazard arising in flight operations or resulting in emergency situations, including fire, smoke, toxic gases and rapid decompression hazards. Provisions must be made to give occupants every reasonable chance of avoiding serious injury and quickly evacuating the aircraft and to protect them from the effect of the deceleration forces in the event of an emergency landing on land or water. Clear and unambiguous signs or announcements must be provided, as necessary, to instruct occupants in appropriate safe behaviour and the location and correct use of safety equipment. Required safety equipment must be readily accessible.

2.c.3. Crew compartments must be arranged in order to facilitate flight operations, including means providing situational awareness, and management of any expected situation and emergencies. The environment of crew compartments must not jeopardise the crew's ability to perform their tasks and its design must be such as to avoid interference during operation and misuse of the controls.

3. Organisations (including natural persons undertaking design, manufacture or maintenance)

3.a. Organisation approvals must be issued when the following conditions are met:

3.a.1. the organisation must have all the means necessary for the scope of work. These means comprise, but are not limited to, the following: facilities, personnel, equipment, tools and material, documentation of tasks, responsibilities and procedures, access to relevant data and record-keeping;

3.a.2. the organisation must implement and maintain a management system to ensure compliance with these essential requirements for airworthiness, and aim for continuous improvement of this system;

3.a.3. the organisation must establish arrangements with other relevant organisations, as necessary, to ensure continuing compliance with these essential requirements for airworthiness;

3.a.4. the organisation must establish an occurrence reporting and/or handling system, which must be used by the management system under point 3.a.2 and the arrangements under point 3.a.3, in order to contribute to the aim of continuous improvement of the safety of products.

3.b. In the case of maintenance training organisations, the conditions under points 3.a.3 and 3.a.4 do not apply.

ANNEX II

Aircraft referred to in Article 4(4)

Article 4(1), (2) and (3) do not apply to aircraft falling in one or more of the categories set out below:

(a) historic aircraft meeting the criteria below:

(i) non-complex aircraft whose:
— initial design was established before 1 January 1955, and
— production has been stopped before 1 January 1975;

or

(ii) aircraft having a clear historical relevance, related to:
— a participation in a noteworthy historical event, or
— a major step in the development of aviation, or
— a major role played into the armed forces of a Member State;

(b) aircraft specifically designed or modified for research, experimental or scientific purposes, and likely to be produced in very limited numbers;

(c) aircraft of which at least 51 % is built by an amateur, or a non-profit making association of amateurs, for their own purposes and without any commercial objective;

(d) aircraft that have been in the service of military forces, unless the aircraft is of a type for which a design standard has been adopted by the Agency;

(e) aeroplanes, helicopters and powered parachutes having no more than two seats, a maximum take-off mass (MTOM), as recorded by the Member States, of no more than:

(i) 300 kg for a land plane/helicopter, single-seater; or

(ii) 450 kg for a land plane/helicopter, two-seater; or

(iii) 330 kg for an amphibian or floatplane/helicopter single-seater; or

(iv) 495 kg for an amphibian or floatplane/helicopter two-seater, provided that, where operating both as a floatplane/helicopter and as a land plane/helicopter, it falls below both MTOM limits, as appropriate;

(v) 472,5 kg for a land plane, two-seater equipped with an airframe mounted total recovery parachute system;

(vi) 315 kg for a land plane single-seater equipped with an airframe mounted total recovery parachute system;

and, for aeroplanes, having the stall speed or the minimum steady flight speed in landing configuration not exceeding 35 knots calibrated air speed (CAS);

(f) single and two-seater gyroplanes with a maximum take off mass not exceeding 560 kg;

(g) gliders with a maximum empty mass, of no more than 80 kg when single-seater or 100 kg when two-seater, including those which are foot launched;

(h) replicas of aircraft meeting the criteria of (a) or (d) above, for which the structural design is similar to the original aircraft;

(i) unmanned aircraft with an operating mass of no more than 150 kg;

(j) any other aircraft which has a maximum empty mass, including fuel, of no more than 70 kg.

ANNEX III

Essential requirements for pilot licensing referred to in Article 7

1. Training

1.a. *General*

1.a.1. A person undertaking training to fly an aircraft must be sufficiently mature educationally, physically and mentally to acquire, retain and demonstrate the relevant theoretical knowledge and practical skill.

1.b. *Theoretical knowledge*

1.b.1. A pilot must acquire and maintain a level of knowledge appropriate to the functions exercised on the aircraft and proportionate to the risks associated to the type of activity. Such knowledge must include at least the following:

(i) air law;

(ii) aircraft general knowledge;

(iii) technical matters related to the category of the aircraft;

(iv) flight performance and planning;

(v) human performance and limitations;

(vi) meteorology;

(vii) navigation;

(viii) operational procedures, including resource management;

(ix) principles of flight;

(x) communications; and

(xi) non-technical skills, including the recognition and management of threats and errors.

1.c. *Demonstration and maintenance of theoretical knowledge*

1.c.1. The acquisition and retention of theoretical knowledge must be demonstrated by continuous assessment during training, and where appropriate, by examinations.

1.c.2. An appropriate level of competence in theoretical knowledge must be maintained. Compliance must be demonstrated by regular assessments, examinations, tests or checks. The frequency of examinations, tests or checks must be proportionate to the level of risk associated with the activity.

1.d. *Practical skill*

1.d.1. A pilot must acquire and maintain the practical skills as appropriate to exercise his/her functions on the aircraft. Such skills must be proportionate to the risks associated to the type of activity and must cover, if appropriate to the functions exercised on the aircraft, the following:

(i) pre-flight and in-flight activities, including aircraft performance, mass and balance determination, aircraft inspection and servicing, fuel planning, weather appreciation, route planning, airspace restrictions and runway availability;

(ii) aerodrome and traffic-pattern operations;

(iii) collision avoidance precautions and procedures;

(iv) control of the aircraft by external visual reference;

(v) flight manoeuvres, including in critical situations, and associated ‘upset’ manoeuvres, as technically achievable;

(vi) normal and cross-wind take-offs and landings;

(vii) flight by reference solely to instruments, as appropriate to the type of activity;

(viii) operational procedures, including team skills and resource management, as appropriate to the type of operation, whether single or multi-crew;

(ix) navigation and implementation of rules of the air and related procedures, using as appropriate, visual reference or navigation aids;

(x) abnormal and emergency operations, including simulated aircraft equipment malfunctions;

(xi) compliance with air traffic services and communications procedures;

(xii) aircraft type or class specific aspects;

(xiii) additional practical skill training that may be required to mitigate risks associated with specific activities; and

(xiv) non-technical skills, including the recognition and management of threats and errors, using an adequate assessment methodology in conjunction with the technical skills assessment.

1.e. *Demonstration and maintenance of practical skill*

1.e.1. A pilot must demonstrate the ability to perform the procedures and manoeuvres with a degree of competence appropriate to the functions exercised on the aircraft, by:

(i) operating the aircraft within its limitations;

(ii) completing all manoeuvres with smoothness and accuracy;

(iii) exercising good judgement and airmanship;

(iv) applying aeronautical knowledge;

(v) maintaining control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured; and

(vi) non-technical skills, including the recognition and management of threats and errors, using an adequate assessment methodology in conjunction with the technical skills assessment.

1.e.2. An appropriate level of competence in practical skill must be maintained. Compliance must be demonstrated by regular assessments, examinations, tests or checks. The frequency of examinations, tests or checks must be proportionate to the level of risk associated with the activity.

1.f. *Language Proficiency*

A pilot must have demonstrated language proficiency to a degree appropriate to the functions exercised on the aircraft. Such demonstrated proficiency shall include:

(i) the ability to understand weather information documents;

(ii) the use of aeronautical en-route, departure and approach charts and associated aeronautical information documents; and

(iii) the ability to communicate with other flight crew and air navigation services during all phases of flight, including flight preparation.

1.g. *Flight simulation training devices*

When a flight simulation training device (FSTD) is used for training, or for demonstration that practical skill is acquired or maintained, this FSTD must be qualified to a given level of performance in those areas, which are relevant to completing the related task. In particular, the replication of configuration, handling qualities, aircraft performance, and systems behaviour must adequately represent the aircraft.

1.h. *Training course*

1.h.1. Training must be executed through a training course.

1.h.2. A training course must meet the following conditions:

(i) a syllabus must be developed for each type of course; and

(ii) the training course must comprise a breakdown of theoretical knowledge and practical flight instruction (including synthetic training), if applicable.

1.i. *Instructors*

1.i.1. Theoretical instruction

Theoretical instruction must be given by appropriately qualified instructors. They must:

(i) have appropriate knowledge in the field where instruction is to be given; and

(ii) be capable of using appropriate instructional techniques.

1.i.2. Flight and flight simulation instruction

Flight and flight simulation instruction must be given by appropriately qualified instructors, who have the following qualifications:

(i) meet the theoretical knowledge and the experience requirements appropriate for the instruction being given;

(ii) be capable of using appropriate instructional techniques;

(iii) have practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction;

(iv) have demonstrated the ability to instruct in those areas in which flight instruction is to be given, including pre-flight, post-flight and ground instruction; and

(v) receive regular refresher training to ensure that the instructional standards are maintained up to date.

Flight instructors must also be entitled to act as pilot in command on the aircraft for which instruction is being given, except for training on new aircraft types.

1.j. *Examiners*

1.j.1. Persons responsible for assessing the skill of pilots must:

(i) meet the requirements for flight or flight simulation instructors;

(ii) be capable of assessing pilot performance and conducting flight tests and checks.

2. Experience requirements

2.a.1. A person acting as flight crew member, instructor or examiner must acquire and maintain sufficient experience for the functions being exercised, unless the implementing rules provide for competence to be demonstrated in accordance with point 1.e.

3. Training organisations

3.a. *Training organisation requirements*

3.a.1. A training organisation providing pilot training must meet the following requirements:

(i) have all the means necessary for the scope of responsibilities associated with their activity. These means comprise, but are not limited to, the following: facilities, personnel, equipment, tools and material, documentation of tasks, responsibilities and procedures, access to relevant data and record-keeping;

(ii) implement and maintain a management system relating to safety and the standard of training, and aim for continuous improvement of this system; and

(iii) establish arrangements with other relevant organisations, as necessary, to ensure continuing compliance with the above requirements.

4. Medical fitness

4.a. *Medical criteria*

4.a.1. All pilots must periodically demonstrate medical fitness to satisfactorily execute their functions, taking into account the type of activity. Compliance must be shown by appropriate assessment based on aero-medical best practice, taking into account the type of activity and the possible mental and physical degradation due to age.

Medical fitness, comprising physical and mental fitness, means not suffering from any disease or disability, which makes the pilot unable:

(i) to execute the tasks necessary to operate an aircraft; or

(ii) to perform assigned duties at any time; or

(iii) to perceive correctly his/her environment.

4.a.2. Where medical fitness cannot be fully demonstrated, mitigation measures that provide equivalent flight safety may be implemented.

4.b. *Aero-medical examiners*

4.b.1. An aero-medical examiner must:

(i) be qualified and licensed in the practice of medicine;

(ii) have received training in aviation medicine and regular refresher training in aviation medicine to ensure that assessment standards are maintained;

(iii) have acquired practical knowledge and experience of the conditions in which pilots carry out their duties.

4.c. *Aero-medical centres*

4.c.1. Aero-medical centres must meet the following conditions:

(i) have all the means necessary for the scope of responsibilities associated with their privileges. These means comprise, but are not limited to, the following: facilities, personnel, equipment, tools and material, documentation of tasks, responsibilities and procedures, access to relevant data and record-keeping;

(ii) implement and maintain a management system relating to safety and the standard of medical assessment, and aim for continuous improvement of this system;

(iii) establish arrangements with other relevant organisations, as necessary, to ensure continuing compliance with these requirements.

ANNEX IV

Essential requirements for air operations referred to in Article 8

1. General

1.a. A flight must not be performed if the crew members and, as appropriate, all other operations personnel involved in its preparation and execution are not familiar with applicable laws, regulations and procedures, pertinent to the performance of their duties, prescribed for the areas to be traversed, the aerodromes planned to be used and the air navigation facilities relating thereto.

1.b. A flight must be performed in such a way that the operating procedures specified in the Flight Manual or, where required the Operations Manual, for the preparation and execution of the flight are followed. To facilitate this, a checklist system must be available for use, as applicable, by crew members in all phases of operation of the aircraft under normal, abnormal and emergency conditions and situations. Procedures must be established for any reasonably foreseeable emergency situation.

1.c. Before every flight, the roles and duties of each crew member must be defined. The pilot in command must be responsible for the operation and safety of the aircraft and for the safety of all crew members, passengers and cargo on board.

1.d. Articles or substances, which are capable of posing a significant risk to health, safety, property or the environment, such as dangerous goods, weapons and ammunition, must not be carried on any aircraft, unless specific safety procedures and instructions are applied to mitigate the related risks.

1.e. All necessary data, documents, records and information to record the respect of the conditions specified in point 5.c must be retained for each flight and kept available for a minimum period of time compatible with the type of operation.

2. Flight preparation

2.a. A flight must not be commenced unless it has been ascertained by every reasonable means available that all the following conditions are complied with:

2.a.1. Adequate facilities directly required for the flight and for the safe operation of the aircraft, including communication facilities and navigation aids, are available for the execution of the flight, taking into account available Aeronautical Information Services documentation.

2.a.2. The crew must be familiar with and passengers informed of the location and use of relevant emergency equipment. Sufficient related information regarding emergency procedures and use of cabin safety equipment must be made available to crew and passengers using specified information.

2.a.3. The pilot in command must be satisfied that:

(i) the aircraft is airworthy as specified in point 6;

(ii) if required, the aircraft is duly registered and that appropriate certificates with respect thereto are aboard the aircraft;

(iii) instruments and equipment as specified in point 5 required for the execution of that flight are installed in the aircraft and are operative, unless waived by the applicable Minimum Equipment List (MEL) or equivalent document;

(iv) the mass of the aircraft and centre of gravity location are such that the flight can be conducted within limits prescribed in the airworthiness documentation;

(v) all cabin baggage, hold luggage and cargo is properly loaded and secured; and

(vi) the aircraft operating limitations as specified in point 4 will not be exceeded at any time during the flight.

2.a.4. Information regarding meteorological conditions for departure, destination and, where applicable, alternate aerodromes, as well as en-route conditions, must be available to the flight crew. Special attention must be given to potentially hazardous atmospheric conditions.

2.a.5. In case of flight into known or expected icing conditions, the aircraft must be certified, equipped and/or treated to operate safely in such conditions.

2.a.6. For a flight based on visual flight rules, meteorological conditions along the route to be flown must be such as to render compliance with these flight rules possible. For a flight based on instrument flight rules a destination and where applicable alternate aerodrome(s) where the aircraft can land must be selected, taking into account in particular the forecasted meteorological conditions, the availability of air navigation services, the availability of ground facilities and the instrument flight procedures approved by the State in which the destination and/or alternate aerodrome is located.

2.a.7. The amount of fuel and oil on board must be sufficient to ensure that the intended flight can be completed safely, taking into account the meteorological conditions, any element affecting the performance of the aircraft and any delays that are expected in flight. In addition, a fuel reserve must be carried to provide for contingencies. Procedures for in-flight fuel management must be established when relevant.

3. Flight operations

3.a. With regard to flight operations, all the following conditions must be complied with:

3.a.1. where relevant for the type of aircraft, during take-off and landing, and whenever deemed necessary by the pilot in command in the interest of safety, each crew member must be seated at their crew station and must use the provided restraint systems, taking into account the type of aircraft;

3.a.2. where relevant for the type of aircraft, all flight crew members required to be on flight deck duty must be and remain at their station, with their seatbelts fastened except en-route for physiological or operational needs;

3.a.3. where relevant for the type of aircraft and the type of operation, before take-off and landing, during taxiing and whenever deemed necessary in the interest of safety, the pilot in command must ensure that each passenger is properly seated and secured;

3.a.4. a flight must be performed in such a way that appropriate separation from other aircraft is maintained and that adequate obstacle clearance is ensured, during all phases of the flight. Such separation must at least be those required by the applicable rules of the air;

3.a.5. a flight must not be continued unless known conditions continue to be at least equivalent to those in point 2. Furthermore, for a flight based on instrument flight rules, an approach toward an aerodrome must not be continued below certain specified heights or beyond a certain position, if prescribed visibility criteria are not met;

3.a.6. in an emergency, the pilot in command must ensure that all passengers are instructed in such emergency action as may be appropriate to the circumstances;

3.a.7. a pilot in command must take all necessary measures so as to minimise the consequences on the flight of disruptive passenger behaviour;

3.a.8. an aircraft must not be taxied on the movement area of an aerodrome, or its rotor must not be turned under power, unless the person at the controls is appropriately competent;

3.a.9. the applicable in-flight fuel management procedures must be used, when relevant.

4. Aircraft performance and operating limitations

4.a. An aircraft must be operated in accordance with its airworthiness documentation and all related operating procedures and limitations as expressed in its approved flight manual or equivalent documentation, as the case may be. The flight manual or equivalent documentation must be available to the crew and kept up to date for each aircraft.

4.b. The aircraft must be operated in accordance with the applicable environmental documentation.

4.c. A flight must not be commenced or continued unless the aircraft's scheduled performance, considering all factors which significantly affect its performance level, allows all phases of flight to be executed within the applicable distances/areas and obstacle clearances at the planned operating mass. Performance factors which significantly affect take-off, en-route and approach/landing are, particularly:

(i) operating procedures;

(ii) pressure altitude of the aerodrome;

(iii) temperature;

(iv) wind;

(v) size, slope and condition of the take-off/landing area; and

(vi) the condition of the airframe, the power plant or the systems, taking into account possible deterioration.

4.c.1. Such factors must be taken into account directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the scheduling of performance data, as appropriate to the type of operation.

5. Instruments, data and equipment

5.a. An aircraft must be equipped with all navigation, communication and other equipment necessary for the intended flight, taking account of air traffic regulations and rules of the air applicable during any phase of the flight.

5.b. When relevant, an aircraft must be equipped with all necessary safety, medical, evacuation and survival equipment, taking account of the risks associated to the areas of operation, the routes to be flown, the flight altitude and the duration of the flight.

5.c. All data necessary for the execution of the flight by the crew must be updated and available on board the aircraft taking account of applicable air traffic regulations, rules of the air, flight altitudes and areas of operation.

6. Continuing airworthiness

6.a. The aircraft must not be operated unless:

(i) the aircraft is in an airworthy condition;

(ii) the operational and emergency equipment necessary for the intended flight is serviceable;

(iii) the airworthiness document of the aircraft is valid; and

(iv) the maintenance of the aircraft is performed in accordance with its maintenance programme.

6.b. Before each flight or consistent series of consecutive flights, the aircraft must be inspected, through a pre-flight check, to determine whether it is fit for the intended flight.

6.c. The maintenance programme must contain in particular, maintenance tasks and intervals, especially those that have been specified as mandatory in the instructions for continuing airworthiness.

6.d. The aircraft must not be operated unless it is released to service by qualified persons or organisations, after maintenance. The signed release to service must contain in particular, the basic details of the maintenance carried out.

6.e. All records demonstrating the airworthiness of the aircraft must be kept until the information contained has been superseded by new information equivalent in scope and detail but not less than 24 months in the case of detailed maintenance records. When the aircraft is leased, all records demonstrating the airworthiness of the aircraft must be kept at least for the length of the lease.

6.f. All modifications and repairs must comply with the essential requirements for airworthiness. The substantiating data supporting compliance with the airworthiness requirements must be retained.

7. Crew members

7.a. The number and composition of the crew must be determined taking into account:

(i) the certification limitations of the aircraft, including if applicable, the relevant emergency evacuation demonstration;

(ii) the aircraft configuration; and

(iii) the type and duration of operations.

7.b. Cabin crew members must:

(i) be trained and checked on a regular basis to attain and maintain an adequate level of competency in order to perform their assigned safety duties; and

(ii) be periodically assessed for medical fitness to safely exercise their assigned safety duties. Compliance must be shown by appropriate assessment based on aero-medical best practice.

7.c. The pilot in command must have the authority to give all commands and take any appropriate actions for the purpose of securing the operation and the safety of the aircraft and of persons and/or property carried therein.

7.d. In an emergency situation, which endangers the operation or the safety of the aircraft and/or persons on board, the pilot in command must take any action he/she considers necessary in the interest of safety. When such action involves a violation of local regulations or procedures, the pilot in command must be responsible for notifying the appropriate local authority without delay.

7.e. Emergency abnormal situations must not be simulated when passengers or cargo are being carried.

7.f. No crew member must allow their task achievement/decision making to deteriorate to the extent that flight safety is endangered because of the effects of fatigue, taking into account, *inter alia*, fatigue accumulation, sleep deprivation, number of sectors flown, night duties or time zone changes. Rest periods must provide sufficient time to enable crew members to overcome the effects of the previous duties and to be well rested by the start of the following flight duty period.

7.g. A crew member must not perform allocated duties on board an aircraft when under the influence of psychoactive substances or alcohol or when unfit due to injury, fatigue, medication, sickness or other similar causes.

8. Additional requirements for operation for commercial purposes and operation of complex motor-powered aircraft

8.a. The operation for commercial purposes and the operation of complex motor-powered aircraft must not be undertaken unless the following conditions are met:

8.a.1. the operator must have directly or indirectly through contracts the means necessary for the scale and scope of the operations. These means comprise but are not limited to the following: aircraft, facilities, management structure, personnel, equipment, documentation of tasks, responsibilities and procedures, access to relevant data and record keeping;

8.a.2. the operator must use only suitably qualified and trained personnel and implement and maintain training and checking programmes for the crew members and other relevant personnel;

8.a.3. the operator must establish a MEL or equivalent document, taking account of the following:

(i) the document must provide for the operation of the aircraft, under specified conditions, with particular instruments, items of equipment or functions inoperative at the commencement of the flight;

(ii) the document must be prepared for each individual aircraft, taking account of the operator's relevant operational and maintenance conditions; and

(iii) the MEL must be based on the Master Minimum Equipment List (MMEL), if available, and must not be less restrictive than the MMEL;

8.a.4. the operator must implement and maintain a management system to ensure compliance with these essential requirements for operations and aim for continuous improvement of this system; and

8.a.5. the operator must establish and maintain an accident prevention and safety programme, including an occurrence reporting programme, which must be used by the management system in order to contribute to the aim of continuous improvement of the safety of operations.

8.b. The operation for commercial purposes and the operation of complex motor-powered aircraft must only be undertaken in accordance with an operator's operations manual. Such manual must contain all necessary instructions, information and procedures for all aircraft operated and for operations personnel to perform their duties. Limitations applicable to flight time, flight duty periods and rest periods for crew members must be specified. The operations manual and its revisions must be compliant with the approved flight manual and be amended as necessary.

8.c. The operator must establish procedures, as appropriate, so as to minimise the consequences to safe flight operations of disruptive passenger behaviour.

8.d. The operator must develop and maintain security programmes adapted to the aircraft and the type of operation including particularly:

(i) security of the flight crew compartment;

(ii) aircraft search procedure checklist;

(iii) training programmes;

(iv) protection of electronic and computer systems to prevent intentional system interference and corruption; and

(v) reporting acts of unlawful interference.

When security measures may adversely affect the safety of operations, the risks must be assessed and appropriate procedures developed to mitigate safety risks, this may necessitate the use of specialist equipment.

8.e. The operator must designate one pilot amongst the flight crew as the pilot in command.

8.f. The prevention of fatigue must be managed through a rostering system. For a flight, or series of flights, such a rostering system needs to address flight time, flight-duty periods, duty and adapted rest periods. Limitations established within the rostering system must take into account all relevant factors contributing to fatigue such as, in particular, number of sectors flown, time-zone crossing, sleep deprivation, disruption of circadian cycles, night hours, positioning, cumulative duty time for given periods of time, sharing of allocated tasks between crew members, and also the provision of augmented crews.

8.g. The tasks specified in point 6.a and those described in points 6.d and 6.e must be controlled by an organisation responsible for the continuing airworthiness management that must meet, in addition to those requirements of Annex I point 3.a, the following conditions:

(i) the organisation must be qualified for the maintenance of products, parts and appliances under its responsibility or have established a contract with such a qualified organisation for these products, parts and appliances; and

(ii) the organisation must establish an organisation manual providing, for use and guidance of personnel concerned, a description of all continuing airworthiness procedures of the

organisation including when applicable a description of administrative arrangements between the organisation and the approved maintenance organisation.

ANNEX V

Criteria for qualified entities referred to in Article 13

1. The entity, its Director and the staff responsible for carrying out the checks, may not become involved, either directly or as authorised representatives, in the design, manufacture, marketing or maintenance of the products, parts, appliances, constituents or systems or in their operations, service provision or use. This does not exclude the possibility of an exchange of technical information between the involved organisations and the qualified entity.

2. The entity and the staff responsible for the certification tasks must carry out their duties with the greatest possible professional integrity and the greatest possible technical competence and must be free of any pressure and incentive, in particular of a financial type, which could affect their judgment or the results of their investigations, in particular from persons or groups of persons affected by the results of the certification tasks.

3. The entity must employ staff and possess the means required to perform adequately the technical and administrative tasks linked with the certification process; it should also have access to the equipment needed for exceptional checks.

4. The staff responsible for investigation must have:

— sound technical and vocational training,

— satisfactory knowledge of the requirements of the certification tasks they carry out and adequate experience of such processes,

— the ability required to draw up the declarations, records and reports to demonstrate that the investigations have been carried out.

5. The impartiality of the investigation staff must be guaranteed. Their remuneration must not depend on the number of investigations carried out or on the results of such investigations.

6. The entity must take out liability insurance unless its liability is assumed by one Member State in accordance with its national law.

7. The staff of the entity must observe professional secrecy with regard to all information acquired in carrying out their tasks under this Regulation.

ANNEX VI

CORRELATION TABLE

Regulation (EC) No 1592/2002	**This Regulation**
Article 1	Article 1
Article 2(1)	Article 2(1)

Article 2(2)(a) to (e)	Article 2(2)(a) to (e)
—	Article 2(2)(f)
Article 2(3)	Article 2(3)
Article 3(a) to (g)	Article 3(a) to (g)
—	Article 3(h) to (l)
Article 4(1)(a) to (c)	Article 4(1)(a) to (c)
—	Article 4(1)(d)
—	Article 4(2) and (3)
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—	Article 4(5)
Article 4(3)	Article 4(6)
Article 5(1)	Article 5(1)
Article 5(2), first subparagraph, introductory wording	Article 5(2), first subparagraph, introductory wording
Article 5(2), first subparagraph, points (a) to (c)	Article 5(2), first subparagraph, points (a) to (c)
Article 5(2), first subparagraph, point (d)	Article 5(2), first subparagraph, points (d) and (e)
Article 5(2), first subparagraph, points (e) and (f)	Article 5(2), first subparagraph, points (f) and (g)
—	Article 5(3)
Article 5(3)	Article 5(4)
Article 5(4), first subparagraph, introductory wording	Article 5(5), first subparagraph, introductory wording
Article 5(4), first subparagraph, points (a) to (d)	Article 5(5), first subparagraph, points (a) to (d)
Article 5(4), first subparagraph, point (e)(i) to (iii)	Article 5(5), first subparagraph, point(e)(i) to (iii)
—	Article 5(5), first subparagraph, point (e)(iv) to (vi)
Article 5(4), first subparagraph, points (f) to (i)	Article 5(5), first subparagraph, points (f) to (i)
—	Article 5(5), first subparagraph, point (j)
Article 5(5), first subparagraph, introductory wording	Article 5(6), first subparagraph, introductory wording
Article 5(5), first subparagraph, points (a), (b) and (c)	Article 5(6), first subparagraph, points (a), (b) and (c)
—	Article 5(6), first subparagraph, point (d)

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Status:
Point in time view as at 20/02/2008.

Changes to legislation:
There are currently no known outstanding effects for the Regulation (EC) No 216/2008 of the European Parliament and of the Council (repealed).