SCHEDULE 1

Article 15(2)(d)

Conditions referred to in article 15(2)(d)

1. An aircraft registered in the Isle of Man may fly for a purpose set out in paragraph 2 or 3 subject to the conditions contained in paragraphs 4 to 7 when either—

(a) it does not have a certificate of airworthiness duly issued or rendered valid under the law of the Isle of Man; or

(b) the certificate of airworthiness or the certificate of validation issued under article 16 issued for the aircraft has ceased to be in force by virtue of any of the matters specified in article 17.

2. The purposes in the case of an aircraft falling within paragraph 1(a) are that the aircraft may fly only so as to enable it to—

(a) qualify for the issue, renewal or validation of a certificate of airworthiness after an application has been made for such issue, renewal or validation, or carry out a functional check of a previously approved modification of the aircraft;

(b) proceed to or from a place at which any inspection, repair, modification, maintenance, approval, test or weighing of, or the installation of equipment in, the aircraft is to take place or has taken place for a purpose referred to in sub-paragraph (a), after any relevant application has been made, or at which the installation of furnishings in, or the painting of, the aircraft is to be undertaken; or

(c) proceed to or from a place at which the aircraft is to be or has been stored.

3. The purposes in the case of an aircraft falling within paragraph 1(b) are that the aircraft may fly only so as to enable it to—

(a) proceed to a place at which any maintenance or inspection required by article 17(1)(b) is to take place; or

(b) proceed to a place at which any maintenance, inspection or modification required by article 17(1)(c), (d) or (e) is to take place and for which flight the Department has given permission in writing; or

(c) carry out a functional check, test or in-flight adjustment in connection with the carrying out in a manner approved by the Department of any overhaul, repair, previously approved modification, inspection or maintenance required by article 17.

4. The aircraft, including any modifications, must be of a design which previously has been approved by the Department, or by an organisation approved for that purpose by the Department, as being compliant with a standard accepted by the Department as appropriate for the issue of a certificate of airworthiness.

5. The aircraft and its engines must be certified as fit for flight by the holder of an aircraft maintenance engineer's licence granted under this Order, being a licence which entitles the holder to issue that certificate or by a person approved by the Department for the purpose of issuing certificates under this condition, and in accordance with that approval.

6. The aircraft must carry the minimum flight crew specified in any certificate of airworthiness or validation or flight manual which has previously been in force under this Order for the aircraft, or is or has previously been in force for any other aircraft of identical design.

7. The aircraft must not carry any persons or cargo except persons performing duties in the aircraft in connection with the flight or persons who are carried in the aircraft to perform duties in connection with a purpose specified in paragraph 2 or 3.

8. For the purpose of this Schedule "a previously approved modification" means a modification which has previously been approved by the Department or by an organisation approved for that purpose by the Department for that aircraft or another aircraft of the same type.

SCHEDULE 2

Classification and marking of aircraft and dealer certification
Articles 6(1)(b) and 167(3)

PART 1

Classification of aircraft

Col.1	*Col.2*	*Col.3*
(1) Lighter than air aircraft	(a) non-power driven	(i) Free balloon
		(ii) Captive balloon
	(b) power-driven	(i) Airship
(2) Heavier than air aircraft	(a) non-power driven	(i) Glider
		(ii) Kite
	(b) power-driven flying machines	(i) Aeroplane (landplane)
		(ii) Aeroplane (seaplane)
		(iii) Aeroplane (amphibian)
		(iv) Aeroplane (self-launching motor glider)
		(v) Powered Lift (tilt rotor)
		(vi) Rotorcraft—
		(aa) Helicopter
		(bb) Gyroplane

Article 6(5)(b) and 6(6)

PART 2

Conditions in aircraft dealer's certificate

1. The operator of the aircraft must be the registered owner of the aircraft and the holder of an aircraft dealer's certificate granted under this Order.

2. The aircraft may fly only for the purpose of—

(a) testing the aircraft;

(b) demonstrating the aircraft with a view to the sale of that aircraft or of other similar aircraft;

(c) proceeding to or from a place at which the aircraft is to be tested or demonstrated as aforesaid, or overhauled, repaired or modified;

(d) delivering the aircraft to a person who has agreed to buy, lease or sell it; or

(e) proceeding to or from a place for the purpose of storage.

3. Without prejudice to article 46 the operator of the aircraft must be satisfied before the aircraft takes off that the aircraft is in every way fit for the intended flight.

4. The aircraft may fly only within the Isle of Man.

Article 10(2)

PART 3

Nationality and registration marks of aircraft registered in the Isle of Man

General

1.—(1) The nationality mark of the aircraft is the capital letter "M" in Roman character.

(2) The registration mark is a group of four capital letters in Roman character assigned by the Department on the registration of the aircraft.

(3) The letters must be without ornamentation.

(4) A hyphen must be placed between the nationality mark and the registration mark.

(5) The nationality and registration marks must be displayed to the best advantage, taking into consideration the constructional features of the aircraft and must always be kept clean and visible.

(6) The letters constituting each group of marks must—

(a) be of equal height; and

(b) together with the hyphen, all be of the same single colour which must clearly contrast with the background on which they appear.

(7) The nationality and registration marks must also be inscribed on a fire-proof metal plate affixed in a prominent position—

(a) in the case of a microlight aeroplane, either on the fuselage or car or on the wing;

(b) in the case of a balloon, on the basket or envelope;

(c) in the case of any other aircraft on the fuselage or car.

(8) The nationality and registration marks must be painted on the aircraft, or affixed to the aircraft by any other means ensuring a similar degree of permanence, in the manner specified in paragraphs 2, 3 and 4 of this Part.

Position and size of marks – heavier than air aircraft

2.—(1) The position and size of marks on heavier than air aircraft (excluding kites) must be as specified in this paragraph.

(2) On such aircraft having a fixed wing surface—

(a) the marks must appear on the lower horizontal surface of the wing structure and on the port wing unless they extend across the whole surface of both wings;

(b) so far as is possible the marks must be located equidistant from the leading and trailing edges of the wings;

(c) the tops of the letters of its marks must be towards the leading edge of the wing;

(d) the height of the letters of its marks must be—

(i) subject to sub-paragraph (ii), at least 500 millimetres;

(ii) if the wings are not large enough for the marks to be 500 millimetres in height, of the greatest height practicable in the circumstances.

(3) On the fuselage (or equivalent structure) and vertical tail surfaces of such aircraft—

(a) the marks must also appear either—

(i) on each side of the fuselage (or equivalent structure), and must, in the case of fixed wing aircraft be located between the wings and the horizontal tail surface; or

(ii) on the vertical tail surfaces;

(b) when located on a single vertical tail surface, the marks must appear on both sides;

(c) when located on multi-vertical tail surfaces, the marks must appear on the outboard sides of the outer-surfaces;

(d) subject to sub-paragraphs (f) and (g), the height of the letters constituting each group of marks must be at least 300 millimetres;

(e) if one of the surfaces authorised for displaying the required marks is large enough for those marks to be 300 millimetres in height (whilst complying with sub-paragraph (g)) and the other is not, marks of 300 millimetres in height must be placed on the largest authorised surface;

(f) if neither authorised surface is large enough for marks of 300 millimetres in height (whilst complying with sub-paragraph (g)), marks of the greatest height practicable in the circumstances must be displayed on the larger of the two authorised surfaces;

(g) marks on the vertical tail surfaces must be such as to leave a margin of at least 50 millimetres along each side of the vertical tail surface.

(4) On rotary wing aircraft where owing to the structure of the aircraft the greatest height practicable for the marks on the side of the fuselage (or equivalent structure) is less than 300 millimetres —

(a) the marks must also appear on the lower surface of the fuselage as close to the line of symmetry as practicable;

(b) they must be placed with the tops of the letters towards the nose;

(c) the height of the letters constituting each group of marks must be—

(i) subject to sub-paragraph (ii), at least 500 millimetres; or

(ii) if the lower surface of the fuselage is not large enough for the marks to be of 500 millimetres in height, of the greatest height practicable in the circumstances.

(5) Wherever in this paragraph marks of the greatest height practicable in the circumstances are required, that height must be such as is consistent with compliance with paragraph 4 of this Part.

Position and size of marks – airships and free balloons

3.—(1) The position and size of marks on airships and free balloons must be as specified in this paragraph.

(2) In the case of airships the marks must be—

(a) placed on each side of the airship; and

(b) placed horizontally either on the hull near the maximum cross-section of the airship or on the lower vertical stabiliser.

(3) In the case of free balloons, the marks must be in two places on diametrically opposite sides of the balloon.

(4) In the case of both airships and free balloons—

(a) the side marks must be so placed as to be visible from the sides and from the ground; and

(b) the height of the letters must be at least 500 millimetres.

Width, spacing and thickness of marks

4.—(1) For the purposes of this paragraph—

(a) "standard letter" means any letter other than the letters I, M and W;

(b) the width of each standard letter and the length of the hyphen between the nationality mark and the registration mark must be two thirds of the height of a letter;

(c) the width of the letters M and W must be neither less than two thirds of their height nor more than their height; and

(d) the width of the letter I must be one sixth of the height of the letter.

(2) The thickness of the lines comprising each letter and hyphen must be one sixth of the height of the letters forming the marks.

(3) Each letter and hyphen must be separated from the letter or hyphen which it immediately precedes or follows by a space equal to either one quarter or one half of the width of a standard letter.

(4) Each such space must be equal to every other such space within the marks.

SCHEDULE 3

Article 24(6) and 32(2)

Aircraft equipment

1.—(1) Every aircraft of a description specified in the first column of the Table in paragraph 4 which must carry equipment specified in this Schedule must be provided, if flying in the circumstances specified in the second column of the said Table, with adequate equipment.

(2) For the purpose of this paragraph the expression "adequate equipment" means, subject to sub-paragraphs (3) and (4), the scales of equipment respectively indicated in the third column of that Table.

(3) If the aircraft is flying in a combination of such circumstances, the scales of equipment are not on that account required to be duplicated.

(4) Equipment carried in an aircraft that is necessary for the airworthiness of the aircraft is to be taken into account in determining whether this Schedule is complied with for that aircraft.

2.—(1) For the purposes of the Table in paragraph 4 flying time in relation to a helicopter or gyroplane is to be calculated on the assumption that it is flying in still air at the speed specified in the relevant flight manual as the speed for compliance with regulations governing flights over water.

(2) In this Schedule "day" means the time from half an hour before sunrise until half an hour after sunset (both times exclusive), sunset and sunrise being determined at surface level.

3. The following items of equipment are not required to be of a type approved by the Department —

(a) the equipment referred to in Scale A(2);

(b) first aid equipment and handbook, referred to in Scale A(3);

(c) time-pieces, referred to in Scale F;

(d) torches, referred to in Scales G and K;

(e) whistles and survivor locator lights, referred to in Scale H;

(f) sea anchors, referred to in Scales J and K;

(g) rocket signals, referred to in Scale J;

(h) equipment for mooring, anchoring or manoeuvring aircraft on the water, referred to in Scale J;

(i) paddles, referred to in Scale K;

(j) food and water, referred to in Scales K, U and V;

(k) first aid equipment, referred to in Scales K, U and V;

(l) stoves, cooking utensils, snow shovels, ice saws, sleeping bags and Arctic suits, referred to in Scale V;

(m) megaphones, referred to in Scale Y.

4. Table

Description of aircraft	*Circumstances of flight*	*Scale of Equipment required*
(1) Aeroplanes	flying on any flight—	A, B(1), (2), (3), (4), (5) and (6)
	(i) by night	C, D, G(2) and (3) and GG
	(ii) flying under Instrument Flight Rules—	
	(aa) outside controlled airspace	D
	(bb) within Class A, B or C airspace	E with E(4) duplicated and F
	(cc) within Class D or E airspace	E and F
	(iii) carrying out aerobatic manoeuvres	B(8) and (9)
	(iv) flying at a height of 13,000ft or more above mean sea level	L1 or L2
	(v) flying over water—	
	(aa) beyond gliding distance from land suitable for an emergency landing	H
	(bb) at a greater distance from land suitable for making an emergency landing than that corresponding to 30 minutes at cruising speed or 100 nautical miles, whichever is the less	H and K
	(cc) at a distance of more than 10 minutes flying time at normal cruising speed away from land suitable for making an emergency landing	KK(1) or KK(2)
	(vi) flying over areas which have been designated by the State concerned as areas in	KK(2)

Description of aircraft	*Circumstances of flight*	*Scale of Equipment required*
	which search and rescue would be especially difficult, and where —	
	(aa) in the event of an emergency landing, tropical conditions are likely to be met	U (except U(1))
	(bb) in the event of an emergency landing, polar conditions are likely to be met	V (except V(1))
	(vii) on all flights which involve manoeuvres on water	H, J and K(1), (2) and (3)
	(viii) with a certificate of airworthiness	A(3) and (5)
	(ix) on flights when the weather reports or forecasts available at the aerodrome at the time of departure indicate that conditions favouring ice formation are likely to be met	M
	(x) on all flights by a pressurised aircraft	R
	(xi) flying at an altitude of more than 49,000 ft	W
(2) Turbine-jet aeroplanes having a maximum total mass authorised of more than 5700 kg or pressurised aircraft having a maximum total mass authorised of more than 11,400 kg	flying on any flight	O
(3) Turbine-engined aeroplanes having a maximum total mass authorised of more than 5700 kg and piston-engined aeroplanes having a maximum total mass authorised of more than 27,000 kg except aeroplanes falling within paragraph (4) or (5)	flying on any flight	P
(4) Aeroplanes — (a) having a maximum total mass authorised of more than 5700 kg but not more than 11,400 kg, (b) in respect of which there is in force a certificate of airworthiness,	flying on any flight	S(1)

Description of aircraft	*Circumstances of flight*	*Scale of Equipment required*
or an application for a certificate of airworthiness has been made and not withdrawn or refused, and (c) which conform to a type first issued with a type certificate on or after 1st April 1971		
(5) Aeroplanes for which a certificate of airworthiness was first issued on or after 1st June 1990 and which have a maximum total mass authorised of more than 27,000 kg	flying on any flight	S(2)
(6) Aeroplanes — (a) having a maximum total mass authorised of more than 27,000 kg, (b) in respect of which there is in force a certificate of airworthiness, or an application for a certificate of airworthiness has been made and not withdrawn or refused, and (c) which conform to a type first issued with a type certificate on or after 1st April 1971 (or 1st January 1970 in the case of an aeroplane having a maximum total mass authorised of more than 230,000 kg)	flying on any flight	T
(7) Aeroplanes — (a) having a maximum total mass authorised of more than 5700 kg or with a maximum	flying on any flight	X(1) or X(2)

Description of aircraft	*Circumstances of flight*	*Scale of Equipment required*
approved passenger seating configuration of more than 9; (b) in respect of which there is in force a certificate of airworthiness; and (c) which are powered by one or more turbine jets or one or more turbine propeller engines		
(8) Aeroplanes —		
(a) having a maximum total mass authorised of more than 22,700 kg and powered by one or more turbo-jets; or	flying by night	Z(1) and (2)
(b) having a maximum total mass authorised of more than 5700 kg and conforming to a type for which a certificate of airworthiness was first applied for after 30th April 1972, but not including any aeroplane which in the opinion of the Department is identical in all matters affecting the provision of emergency evacuation facilities to an aeroplane in respect of which an application for a certificate of airworthiness was first made before that date; or	flying by night	Z(1) and (2)
(c) having a maximum approved passenger seating configuration of more than 19	flying by night	Z(1)
(9) Aeroplanes — (a) powered by one or more turbine jets; or	flying on any flight	AA

Description of aircraft	*Circumstances of flight*	*Scale of Equipment required*
(b) powered by one or more turbine propeller engines, having a maximum total mass authorised of more than 5700 kg and first issued with a certificate of airworthiness in the Isle of Man or the United Kingdom on or after 1st April 1989		
(10) Helicopters and gyroplanes	flying on any flight —	A(1), (2), (3) and (5) and B(1), (2), (3), (4), (5) and (6)
	(i) flying by day under Visual Flight Rules—	
	(aa) with the surface in sight	D
	(bb) when the surface is not in sight	E
	(ii) flying by day under Instrument Flight Rules —	
	(aa) with the surface in sight	E
	(bb) when the surface is not in sight outside controlled airspace	E with E(2) duplicated
	(cc) when the surface is not in sight within controlled airspace	E with both E(2) and E(4) duplicated and F
	(iii) flying by night —	
	(aa) with the surface in sight	C, E and G(3), (5) and (6)
	(bb) when the surface is not in sight outside controlled airspace	C, E with E(2) duplicated and G(3), (5) and (6)
	(cc) when the surface is not in sight within controlled airspace	C, E with both E(2) and E(4) duplicated , F and G(3), (5) and (6)
	(iv) flying at a height of 13,000 ft or more above mean sea level	L1 or L2
	(v) flying over water —	
	(aa) beyond autorotational gliding distance from land suitable for an emergency landing	H
	(bb) on all flights on which in the event of any emergency occurring during the take-off or during the landing at the intended destination or any likely alternate destination	H

Description of aircraft	*Circumstances of flight*	*Scale of Equipment required*
	it is reasonably possible that the helicopter or gyroplane would be forced to land onto water	
	(cc) at a distance of more than 10 minutes flying time at normal cruising speed away from land suitable for making an emergency landing	KK(1) or KK(2)
	(vi) flying over areas which have been designated by the State concerned as areas in which search and rescue would be especially difficult, and where —	KK(2)
	(aa) in the event of an emergency landing, tropical conditions are likely to be met	U (except U(1))
	(bb) in the event of an emergency landing, polar conditions are likely to be met	V (except V(1))
	(vii) where the flight involves manoeuvres on water	H, J and K
	(viii) when the weather reports or forecasts available at the aerodrome at the time of departure indicate that conditions favouring ice formation are likely to be met	M
	(ix) flying over substantially uninhabited land areas where, in the event of an emergency landing, tropical conditions are likely to be met	U
	(x) flying over substantially uninhabited land or other areas where, in the event of an emergency landing, polar conditions are likely to be met	V
(11) Helicopters and gyroplanes -	flying at a height of 10,000ft or more above mean sea level	
(a) having a certificate of airworthiness first issued before 1st January 1989; or		L1 or L2
(b) having a certificate of airworthiness first issued on or after 1st January 1989		L2
(12) Helicopters and gyroplanes -	flying by night	
(a) having a maximum total mass authorised of more than 5700 kg and conforming to a type		Z(1) and (2)

Description of aircraft	*Circumstances of flight*	*Scale of Equipment required*
for which a certificate of airworthiness was first applied for on or after 30th April 1972, but not including any helicopter or gyroplane which in the opinion of the Department is identical in all matters affecting the provision of emergency evacuation facilities to a helicopter or gyroplane for which a certificate of airworthiness was first applied for before that date;		
(b) having a maximum approved passenger seating configuration of more than 19, but not including a helicopter or gyroplane falling within (a) above; or (c) which are public transport helicopters or gyroplanes for which there is in force a certificate of airworthiness; and		Z(1)
(i) which have a maximum total mass authorised of more than 2730kg but not more than 7000kg or with a maximum approved passenger seating configuration of more than 9 or both; or	flying on any flight	SS(1) or SS(3)
(ii) which have a maximum total mass authorised of more than 7000kg	flying on any flight	SS(1) or SS(3)

5. The scales of equipment indicated in the Table at paragraph 4 are as follows—

Scale A

(1) Spare fuses for all electrical circuits the fuses of which can be replaced in flight, consisting of 10 per cent of the number of each rating or three of each rating, whichever is the greater.

(2) Maps, charts, codes and other documents and navigational equipment necessary, in addition to any other equipment required under this Order, for the intended flight of the aircraft including any diversion which may reasonably be expected.

(3) First aid equipment of good quality, sufficient in quantity, having regard to the number of persons on board the aircraft, and including the following—

(a) roller bandages;

(b) triangular bandages;

(c) adhesive plaster;

(d) absorbent gauze or wound dressings;

(e) cotton wool or wound dressings;

(f) burn dressings;

(g) safety pins;

(h) haemostatic bandages or tourniquets;

(i) scissors;

(j) antiseptic;

(k) oral drugs as follows: analgesic, central nervous system stimulant, circulatory stimulant, coronary vasodilator, antidiarrhoeic and motion sickness medications;

(l) splints, in the case of aeroplanes the maximum total mass authorised of which exceeds 5700 kg;

(m) a handbook on first aid;

(n) a ground-air visual signal code for use by survivors;

(o) ophthalmic ointment;

(p) a decongestant nasal spray;

(q) insect repellent;

(r) emollient eye drops;

(s) sunburn cream;

(t) water-miscible antiseptic / skin cleanser;

(u) materials for treatment of extensive burns;

(v) artificial plastic airway.

(4) A hand fire extinguisher for each enclosed passenger and crew compartment, so installed that at least one extinguisher is conveniently located for use by a member of the flight crew.

Scale AA

(1) Subject to paragraph (1), an altitude alerting system capable of alerting the pilot on approaching a preselected altitude in either ascent or descent, by a sequence of visual and aural signals in sufficient time to establish level flight at that preselected altitude and when deviating above or below that preselected altitude, by a visual and an aural signal.

(2) If the system becomes unserviceable, the aircraft may fly or continue to fly, until it first lands at a place at which it is reasonably practicable for the system to be repaired or replaced.

Scale B

(1) If the maximum total mass authorised of the aircraft is 2730 kg or less, for every pilot's seat and for any seat situated alongside a pilot's seat, either a safety belt with one diagonal shoulder strap or a safety harness, or with the permission of the Department, a safety belt without a diagonal

shoulder strap for which permission may be granted if the Department is satisfied that it is not reasonably practicable to fit a safety belt with one diagonal shoulder strap or a safety harness.

(2) If the maximum total mass authorised of the aircraft exceeds 2730 kg, either a safety harness for every pilot's seat and for any seat situated alongside a pilot's seat, or with the permission of the Department, a safety belt with one diagonal shoulder strap which permission may be granted if the Department is satisfied that it is not reasonably practicable to fit a safety harness.

(3) For every seat in use (not being a seat referred to in paragraphs (1), (2), (5) and (6)) a safety belt with or without one diagonal shoulder strap or a safety harness.

(4) In addition, and to be attached to or secured by the equipment required in paragraph (3) or (6), a child restraint device for every child under the age of two years on board.

(5) On all flights for the commercial air transport of passengers by aircraft, for each seat for use by cabin crew who are required to be carried under this Order, a safety harness.

(6) On all flights in aeroplanes for which a certificate of airworthiness was first issued on or after 1st February 1989, the maximum total mass authorised of which is not more than 5700 kg and with a maximum approved passenger seating configuration of 9 or less, (otherwise than for seats referred to under paragraph (1) or (2)), a safety belt with one diagonal shoulder strap or a safety harness for each seat intended for use by a passenger.

(7) If the commander cannot, from the commander's own seat, see all the passenger seats in the aircraft, a means of indicating to the passengers that seat belts should be fastened.

(8) Subject to paragraph (9), a safety harness for every seat in use.

(9) In the case of an aircraft carrying out aerobatic manoeuvres consisting only of erect spinning, the Department may permit a safety belt with one diagonal shoulder strap to be fitted if it is satisfied that such restraint is sufficient for the carrying out of erect spinning in that aircraft and that it is not reasonably practicable to fit a safety harness in that aircraft.

Scale C

(1) Equipment for displaying the lights required by Section 8 of the Rules of the Air Regulations 2007(**1**).

(2) Electrical equipment, supplied from the main source of supply in the aircraft, to provide sufficient illumination to enable the flight crew properly to carry out their duties during flight.

(3) Unless the aircraft is equipped with radio, devices for making the visual signal specified in Rule 61 of the Rules of the Air Regulations 2007 as indicating a request for permission to land.

Scale D

(1) In the case of a helicopter or gyroplane, a slip indicator.

(2) In the case of any other flying machine either—

(a) a turn indicator and a slip indicator; or

(b) a gyroscopic bank and pitch indicator and a gyroscopic direction indicator.

(3) A sensitive pressure altimeter adjustable for any sea level barometric pressure which the weather report or forecasts available to the commander of the aircraft indicate is likely to be encountered during the intended flight.

(4) A means of measuring and displaying magnetic heading.

Scale E

(1) In the case of—

(a) a helicopter or gyroplane, a slip indicator;

(**1**) S.I 2007/734, to which there are amendments not relevant to this provision.

(b) any other flying machine, a slip indicator and either a turn indicator or, at the option of the operator, an additional gyroscopic bank and pitch indicator.

(2) A gyroscopic bank and pitch indicator.

(3) A gyroscopic direction indicator.

(4) A sensitive pressure altimeter adjustable for any sea level barometric pressure which the weather report or forecasts available to the commander of the aircraft indicate is likely to be encountered during the intended flight.

Scale EE

(1) Subject to paragraph (2), a radio altimeter with an audio voice warning operating below a preset height and a visual warning capable of operating at a height selectable by the pilot.

(2) A helicopter flying under and in accordance with the terms of a police air operator's certificate may instead be equipped with a radio altimeter with an audio warning and a visual warning each capable of operating at a height selectable by the pilot.

Scale F

(1) A timepiece indicating the time in hours, minutes and seconds.

(2) A means of indicating whether the power supply to the gyroscopic instrument is adequate.

(3) A rate of climb and descent indicator.

(4) A means of indicating in the flight crew compartment the outside air temperature calibrated in degrees Celsius.

(5) If the maximum total mass authorised of the aircraft exceeds 5700 kg, two air speed indicators.

Scale G

(1) In the case of an aircraft other than a helicopter or gyroplane, landing lights consisting of two single filament lamps, or one dual filament lamp with separately energised filaments.

(2) An electrical lighting system to provide illumination in every passenger compartment.

(3) Either—

(a) one electric torch for each member of the crew of the aircraft; or

(b) one electric torch—

(i) for each member of the flight crew of the aircraft; and

(ii) affixed adjacent to each floor level exit intended for the disembarkation of passengers whether normally or in an emergency, provided that such torches must—

(aa) be readily accessible for use by the crew of the aircraft at all times; and

(bb) number in total not less than the minimum number of members of the cabin crew required to be carried with a full passenger complement.

(4) In the case of an aircraft other than a helicopter or gyroplane which has a maximum total mass authorised exceeding 5700 kg, means of observing the existence and build up of ice on the aircraft.

(5) In the case of a helicopter carrying out Performance Class 1 or 2 operations (as defined by The Air Navigation (General) Regulations 2006(**2**) as applied to the Isle of Man) or a gyroplane for which there is in force a certificate of airworthiness designating the gyroplane as being of performance group A(**3**), either—

(**2**) S.I. 2006/601.
(**3**) A gyroplane is designated as performance group A or B according to its ability to continue a flight in the event of engine failure.

(a) two landing lights both of which are adjustable so as to illuminate the ground in front of and below the helicopter or gyroplane and one of which is adjustable so as to illuminate the ground on either side of the helicopter or gyroplane; or

(b) one landing light or, if the maximum total mass authorised of the helicopter or gyroplane exceeds 5700 kg, one dual filament landing light with separately energised filaments, or two single filament lights, each of which is adjustable so as to illuminate the ground in front of and below the helicopter or gyroplane, and two parachute flares.

(6) In the case of a helicopter carrying out Performance Class 3 operations or a gyroplane for which there is in force a certificate of airworthiness designating the gyroplane as being of performance group B—

(a) one landing light and two parachute flares;

(b) if the maximum total mass authorised of the helicopter or gyroplane exceeds 5700 kg, either one dual filament landing light with separately energised filaments or two single filament landing lights, and two parachute flares; or

(c) if the maximum total mass authorised of the helicopter or gyroplane is 5700 kg or less and the flight is for a purpose other than commercial air transport—

(i) two landing lights, one of which is adjustable in flight so as to illuminate the ground in front of, below and on either side of the helicopter; or

(ii) two landing lights in addition to the helicopter standard equipment, which must be adjusted so as to illuminate the ground in front of the helicopter.

Scale GG

A landing light.

Scale H

(1) Subject to paragraph (2), for each person on board, a lifejacket equipped with a whistle and survivor locator light.

(2) Lifejackets constructed and carried solely for use by children less than three years of age need not be equipped with a whistle.

Scale J

(1) Additional flotation equipment, capable of supporting one-fifth of the number of persons on board, and provided in a place of stowage accessible from outside the flying machine.

(2) Parachute distress rocket signals capable of making, from the surface of the water, the pyrotechnical signal of distress specified in Rule 61 of the Rules of the Air Regulations 2007 and complying with the requirements of Schedule 7, Part 2 of the Merchant Shipping Notice (MSA) 1676(M)(**4**).

(3) An anchor, a sea anchor and other equipment necessary to facilitate mooring, anchoring or manoeuvring the flying machine on water, appropriate to its size, mass and handling characteristics.

(4) Equipment for making the sound signals prescribed in the International Regulations for Preventing Collisions at Sea.

Scale K

(1) In the case of—

(a) a flying machine, other than a helicopter or gyroplane carrying 20 or more persons, liferafts sufficient to accommodate all persons on board;

(**4**) Merchant Shipping Notice is defined in regulation 2(2) of the Merchant Shipping (Life-Saving Appliances for Ships other than Ships of Class III to VI(A)) Regulations 1999 (S.I. 199/2721) as a notice described as such and issued by the Maritime and Coast Guard Agency, an Executive Agency of the Department for Transport.

(b) a helicopter or gyroplane carrying 20 or more persons, a minimum of two liferafts sufficient together to accommodate all persons on board.

(2) Each liferaft must contain the following equipment—

(a) means of maintaining buoyancy;

(b) a sea anchor;

(c) life-lines, and means of attaching one liferaft to another;

(d) paddles or other means of propulsion;

(e) means of protecting the occupants from the elements;

(f) a waterproof torch;

(g) marine type pyrotechnical distress signals;

(h) means of making sea water drinkable, unless the full quantity of fresh water is carried as specified in sub-paragraph (i);

(i) for each four or proportion of four persons the liferaft is designed to carry—

(i) 100 grammes of glucose toffee tablets; and

(ii) ½ litre of fresh water in durable containers or in any case in which it is not reasonably practicable to carry the quantity of water above specified, as large a quantity of fresh water as is reasonably practicable in the circumstances;

provided that in no case must the quantity of water carried be less than is sufficient, when added to the amount of fresh water capable of being produced by means of the equipment specified in sub-paragraph (h), to provide ½ litre of water for each four or proportion of four persons the liferaft is designed to carry; and

(j) first aid equipment.

(3) Items (2)(f) to (j) inclusive must be contained in a pack.

(4) The number of survival beacon radio apparatus carried when the aircraft is carrying the number of liferafts specified in Column 1 of the following Table must be not less than the number specified in, or calculated in accordance with, Column 2.

Column 1	*Column 2*
Not more than 8 liferafts	2 survival beacon radio apparatus
For every additional 4 or proportion of 4 liferafts	1 additional survival beacon radio apparatus

Scale KK

(1) A survival emergency locator transmitter which complies with paragraph (4).

(2) An automatic emergency locator transmitter which complies with paragraph (4).

(3) An automatically deployable emergency locator transmitter which complies with paragraph (4).

(4) The transmitter must be capable of operating in accordance with the relevant provisions of Annex 10 to the Chicago Convention, Volume III (Second Edition July 2007)(**5**) and transmitting on 121.5 MHz and 406 MHz.

Scale L1 Part 1

(**5**) Annex 10 is published by the International Civil Aviation Organisation.

(1) In every flying machine which is provided with means for maintaining a pressure greater than 700 hectopascals throughout the flight in the flight crew compartment and in the compartments in which the passengers are carried—

(a) in the event of a failure to maintain such pressure occurring in the circumstances specified in columns 1 and 2 of the Table set out in Part 2, a supply of oxygen sufficient for continuous use during the periods specified in column 3 of the Table, by the persons for whom oxygen is to be provided in accordance with column 4 of the Table; and

(b) in every case where the flying machine flies above flight level 350, a supply of oxygen in a portable container sufficient for the simultaneous first aid treatment of two passengers,

together with suitable and sufficient apparatus to enable such persons to use the oxygen.

(2) In any other flying machine—

(a) a supply of oxygen sufficient for continuous use by all the crew other than the flight crew and, if passengers are carried, by 10% of the number of passengers, for any period of more than 30 minutes during which the flying machine flies above flight level 100 but not above flight level 130; and the flight crew must be supplied with oxygen sufficient for continuous use for any period during which the flying machine flies above flight level 100; and

(b) a supply of oxygen sufficient for continuous use by all persons on board for the whole time during which the flying machine flies above flight level 130,

together with suitable and sufficient apparatus to enable such persons to use the oxygen.

Scale L1 Part 2

Column 1 Vertical displacement of the flying machine in relation to flight levels	Column 2 Capability of flying machine to descend (where relevant)	Column 3 Period of supply of oxygen	Column 4 Persons for whom oxygen is to be provided
Above flight level 100	—	30 minutes or the period specified at A below whichever is the greater	In addition to any passengers for whom oxygen is provided as specified below, all the crew
Above flight level 100 but not above flight level 300	Flying machine is either flying at or below flight level 150 or is capable of descending and continuing to destination as specified at X below	30 minutes or the period specified at A below whichever is the greater	10% of number of passengers
	Flying machine is flying above flight level 150 and is not capable of descending and continuing to destination specified at X below	10 minutes or the period specified at B below whichever is the greater and 30 minutes or the period specified at C	All passengers 10% of number of passengers

Column 1 Vertical displacement of the flying machine in relation to flight levels	Column 2 Capability of flying machine to descend (where relevant)	Column 3 Period of supply of oxygen	Column 4 Persons for whom oxygen is to be provided
		below whichever is the greater	
Above flight level 300 but not above flight level 350	Flying machine is capable of descending and continuing to destination as specified at Y below	30 minutes or the period specified at A below whichever is the greater	15% of number of passengers
	Flying machine is not capable of descending and continuing to destination as specified at Y below	10 minutes or the period specified at B below whichever is the greater	All passengers
		and 30 minutes or the period specified at C below whichever is the greater	15% of passengers
Above flight level 350	—	10 minutes or the period specified at B below whichever is the greater	All passengers
		and 30 minutes or the period specified at C below whichever is the greater	15% of number of passengers

(A) The whole period during which, after a failure to maintain a pressure greater than 700 hectopascals in the control compartment and in the compartments in which passengers are carried has occurred, the flying machine flies above flight level 100.

(B) The whole period during which, after a failure to maintain such pressure has occurred, the flying machine flies above flight level 150.

(C) The whole period during which, after a failure to maintain such pressure has occurred, the flying machine flies above flight level 100, but not above flight level 150.

(X) The flying machine is capable, at the time when a failure to maintain such pressure occurs, of descending in accordance with the emergency descent procedure specified in the flight manual and without flying below the minimum altitudes for safe flight specified in the operations manual, to flight level 150 within six minutes, and of continuing at or below that flight level to its place of intended destination or any other place at which a safe landing can be made.

(Y) The flying machine is capable, at the time when a failure to maintain such pressure occurs, of descending in accordance with the emergency descent procedure specified in the flight manual and

without flying below the minimum altitudes for safe flight specified in the operations manual, to flight level 150 within four minutes, and of continuing at or below that flight level to its place of intended destination or any other place at which a safe landing can be made.

Scale L2

(1) A supply of oxygen and the associated equipment to meet the requirements set out in Part 1 of this Scale in the case of unpressurised aircraft and Part 2 of this Scale in the case of pressurised aircraft.

(2) The duration for the purposes of this Scale is whichever is the greater of—

(a) that calculated in accordance with Part 1 of Scale L1, being the period or periods which it is reasonably anticipated that the aircraft will be flown in the circumstances of the intended flight at a height where the said requirements apply, and in calculating the duration, account must be taken of—

(i) in the case of pressurised aircraft, the possibility of depressurisation when flying above flight level 100;

(ii) the possibility of failure of one or more of the aircraft engines;

(iii) restrictions due to required minimum safe altitude;

(iv) fuel requirement; and

(v) the performance of the aircraft; or

(b) the period or periods during which the aircraft is actually flown in the circumstances specified in those Parts.

Part 1 Unpressurised aircraft

(1) When flying at or below flight level 100, nil.

(2) When flying above flight level 100 but not above flight level 120—

Supply for	*Duration*
(a) Members of the flight crew	Any period during which the aircraft flies above flight level 100
(b) Members of the cabin crew and 10% of passengers	For any continuous period of more than 30 minutes during which the aircraft flies above flight level 100 but not above flight level 120, the duration is the period by which 30 minutes is exceeded

(3) When flying above flight level 120—

Supply for	Duration
(a) Members of the flight crew	Any period during which the aircraft flies above flight level 120
(b) Members of the cabin crew and all passengers	Any period during which the aircraft flies above flight level 120

Part 2 Pressurised aircraft

(1) When flying at or below flight level 100, nil.

(2) When flying above flight level 100 but not above flight level 250—

Supply for	Duration
(a) Members of the flight crew	30 minutes or whenever the cabin pressure altitude exceeds 10,000 ft, whichever is the greater
(b) Members of the cabin crew and 10% of passengers	(i) When the aircraft is capable of descending and continuing to its destination as specified at A below, 30 minutes or whenever the cabin pressure altitude exceeds 10,000 ft, whichever is the greater (ii) When the aircraft is not so capable, whenever the cabin pressure altitude is greater than 10,000 ft but is not more than 12,000 ft
(c) Members of the cabin crew and all passengers	(i) When the aircraft is capable of descending and continuing to its destination as specified at A below, no requirement other than that at (2)(b)(i) of this Part of this Scale (ii) When the aircraft is not so capable and the cabin pressure altitude exceeds 12,000 ft, the duration is the period when the cabin pressure altitude exceeds 12,000 ft or 10 minutes, whichever is the greater

(3) When flying above flight level 250—

Supply for	Duration
(a) Members of the flight crew	2 hours or whenever the cabin pressure altitude exceeds 10,000 ft, whichever is the greater
(b) Members of the cabin crew	Whenever the cabin pressure altitude exceeds 10,000 ft, and a portable supply for 15 minutes
(c) 10% of passengers	Whenever the cabin pressure altitude exceeds 10,000 ft but is not more than 12,000 ft
(d) 30% of passengers	Whenever the cabin pressure altitude exceeds 12,000 ft but is not more than 15,000 ft
(e) All passengers	If the cabin pressure altitude exceeds 15,000 ft, the duration is the period when the cabin pressure altitude exceeds 15,000 ft or 10 minutes, whichever is the greater
(f) 2% of passengers or two passengers, whichever is the greater, being a supply of first aid oxygen which must be available for simultaneous first aid treatment of 2% or two passengers wherever they are seated in the aircraft	Whenever, after decompression, the cabin pressure altitude exceeds 8000 ft

A. The flying machine is capable, at the time when a failure to maintain cabin pressurisation occurs, of descending in accordance with the emergency descent procedure specified in the relevant flight

manual and without flying below the minimum altitudes for safe flight specified in the operations manual relating to the aircraft, to flight level 120 within five minutes and of continuing at or below that flight level to its place of intended destination or any other place at which a safe landing can be made.

Scale M

Equipment to prevent the impairment through ice formation of the functioning of the controls, means of propulsion, lifting surfaces, windows or equipment of the aircraft so as to endanger the safety of the aircraft.

Scale O

(1) Subject to paragraphs (2) and (3), a radar set capable of giving warning to the pilot in command of the aircraft and to the co-pilot of the presence of cumulo-nimbus clouds and other potentially hazardous weather conditions.

(2) A flight may commence if the set is unserviceable or continue if the set becomes unserviceable in flight so as to give the warning only to one pilot, if the aircraft is flying only to the place at which it first becomes reasonably practicable for the set to be repaired.

(3) A flight may commence if the set is unserviceable or continue if the set becomes unserviceable in flight if—

(a) the weather report or forecasts available to the commander of the aircraft indicate that cumulo-nimbus clouds or other potentially hazardous weather conditions, which can be detected by the set when in working order, are unlikely to be encountered on the intended route or any planned diversion from the route; or

(b) the commander is satisfied that any such weather conditions will be encountered in daylight and can be seen and avoided; and

(c) the aircraft is operated throughout the flight in accordance with any relevant instructions given in the operations manual.

Scale P

(1) Subject to paragraphs (2) and (5), a flight data recorder which is capable of recording, by reference to a time-scale, the following data—

(a) indicated airspeed;

(b) indicated altitude;

(c) vertical acceleration;

(d) magnetic heading;

(e) pitch attitude, if the equipment provided in the aeroplane is of such a nature as to enable this item to be recorded;

(f) engine power, if the equipment provided in the aeroplane is of such a nature as to enable this item to be recorded;

(g) flap position; and

(h) roll attitude, if the equipment provided in the aeroplane is of such a nature as to enable this item to be recorded.

(2) Subject to paragraph (5), any aeroplane having a maximum total mass authorised of not more than 11,400 kg may be provided with—

(a) a flight data recorder capable of recording the data specified in paragraph (1); or

(b) a four channel cockpit voice recorder.

(3) Subject to paragraph (5), in addition, on all flights by turbine-powered aeroplanes having a maximum total mass authorised of more than 11,400 kg, a four channel cockpit voice recorder.

(4) The flight data recorder and cockpit voice recorder referred to above must be so constructed that the record would be likely to be preserved in the event of an accident to the aeroplane.

(5) An aeroplane is not required to carry the equipment specified in paragraphs (1), (2) and (3) if, before take-off, the equipment is found to be unserviceable and the aircraft flies in accordance with arrangements approved by the Department.

Scale R

(1) For aeroplanes having a maximum total mass authorised of more than 5700 kg—

(a) equipment sufficient to protect the eyes, nose and mouth of all members of the flight crew required to be carried by Part 5 for a period of not less than 15 minutes; and

(b) if under Part 5 the minimum flight crew required to be carried is more than one and a member of the cabin crew is not required to be carried, portable equipment sufficient to protect the eyes, nose and mouth of one member of the flight crew for a period of not less than 15 minutes.

(2) For aeroplanes having a maximum total mass authorised of not more than 5700 kg—

(a) either the equipment specified in paragraph (1); or

(b) in the case of such aeroplanes which are restricted by virtue of the operator's operations manual to flight at or below flight level 250 and are capable of descending as specified at paragraph (5), such equipment sufficient to protect the eyes only.

(3) For—

(a) aeroplanes having a maximum total mass authorised of more than 5700 kg, portable equipment to protect the eyes, nose and mouth of all members of the cabin crew required to be carried by Part 5 for a period of not less than 15 minutes;

(b) aeroplanes having a maximum total mass authorised of not more than 5700 kg, subject to paragraph (4), the equipment specified in sub-paragraph (3)(a);

(4) Sub-paragraph (3)(b) does not apply to such aeroplanes which are restricted by virtue of the operator's operations manual to flight at or below flight level 250 and are capable of descending as specified at paragraph (5).

(5) The aeroplane is capable of descending in accordance with the emergency descent procedure specified in the relevant flight manual and without flying below the minimum altitudes for safe flight specified in the operations manual relating to the aeroplane, to flight level 100 within four minutes and of continuing at or below that flight level to its place of intended destination or any other place at which a safe landing can be made.

Scale S

(1) Subject to paragraph (4), either a four channel cockpit voice recorder or a flight data recorder which complies with paragraph (3) and capable of recording by reference to a time scale the data required to determine the following matters accurately in respect of the aeroplane—

(a) the flight path;

(b) attitude; and

(c) the basic lift, thrust and drag forces acting on it.

(2) Subject to paragraph (4), a cockpit voice recorder and a flight data recorder which comply with paragraph (3) and capable of recording by reference to a time scale the data required to determine the following matters accurately in respect of the aeroplane—

(a) the flight path;

(b) speed;

(c) attitude;

(d) engine power;

(e) outside air temperature;

(f) instrument landing system deviations;

(g) marker beacon passage;

(h) radio altitude;

(i) configuration of the landing gear and lift and drag devices;

(j) position of primary flying controls;

(k) pitch trim position;

(l) use of automatic flight control systems;

(m) use of VHF transmitters;

(n) ground speed/drift angle or latitude/longitude if the navigational equipment provided in the aeroplane is of such a nature as to enable this information to be recorded with reasonable practicability;

(o) cockpit warnings relating to ground proximity; and

(p) the master warning system.

(3) Any cockpit voice recorder, flight data recorder or combined cockpit voice recorder/flight data recorder required to be carried by paragraphs (1) and (2) must be so constructed that the record would be likely to be preserved in the event of an accident.

(4) An aircraft is not required to carry the equipment specified in paragraphs (1) and (2) if, before take-off, the equipment is found to be unserviceable and the aircraft flies in accordance with arrangements approved by the Department.

Scale SS

(1) A four channel cockpit voice recorder capable of recording and retaining the data recorded during at least the last 30 minutes of its operation and a flight data recorder capable of recording and retaining the data recorded during at least the last eight hours of its operation being the data required to determine by reference to a time scale the following matters accurately in respect of the helicopter or gyroplane—

(a) flight path;

(b) speed;

(c) attitude;

(d) engine power;

(e) main rotor speed;

(f) outside air temperature;

(g) position of pilot's primary flight controls;

(h) use of VHF transmitters;

(i) use of automatic flight controls (if any);

(j) use of stability augmentation system (if any);

(k) cockpit warnings relating to the master warning system; and

(l) selection of hydraulic system and cockpit warnings of failure of essential hydraulic systems.

(a) (2) (a) A four channel cockpit voice recorder capable of recording and retaining the data recorded during at least the last 30 minutes of its operation; and

(b) a flight data recorder capable of recording and retaining the data recorded during at least the last 8 hours of its operation, being the data required to accurately determine by reference to a time scale the information specified in paragraph (1) together with the following matters in respect of the helicopter or gyroplane—

(i) landing gear configuration;

(ii) indicated sling load force if an indicator is provided in the helicopter or gyroplane of such a nature as to enable this information to be recorded with reasonable practicability;

(iii) radio altitude;

(iv) instrument landing system deviations;

(v) marker beacon passage;

(vi) ground speed/drift angle or latitude/longitude if the navigational equipment provided in the helicopter or gyroplane is of such a nature as to enable this information to be recorded with reasonable practicability; and

(vii) main gear box oil temperature and pressure.

(3) Subject to paragraphs (4) and (7), a combined cockpit voice recorder/flight data recorder which meets the following requirements—

(a) in the case of a helicopter or gyroplane which is otherwise required to carry a flight data recorder specified at paragraph (1) the flight data recorder must be capable of recording the data specified in paragraph (1) and retaining it for the duration specified in paragraph (1);

(b) in the case of a helicopter or gyroplane which is otherwise required to carry a flight data recorder specified at paragraph (2) the flight data recorder must be capable of recording the data specified in paragraph (2) and retaining it for the duration specified in paragraph (2); and

(c) the cockpit voice recorder must be capable of recording and retaining at least the last hour of cockpit voice recording information on not less than three separate channels.

(4) (a) Subject to sub-paragraph (b), in any case when a combined cockpit voice recorder/ flight data recorder specified at paragraph (3)(a) is required to be carried by or under this Order, the flight data recorder must be capable of retaining—

(i) as protected data the data recorded during at least the last five hours of its operation or the maximum duration of the flight, whichever is the greater; and

(ii) additional data as unprotected data for a period which together with the period for which protected data is required to be retained amounts to a total of eight hours.

(b) The flight data recorder need not be capable of retaining the additional data specified in sub-paragraph (a)(ii) if—

(i) other additional data is retained which relates to the period immediately preceding the period to which the required protected data relates; and

(ii) the other additional data is retained in accordance with arrangements approved by the Department.

(5) With the exception of flight data which it is expressly stated above may be unprotected, the cockpit voice recorder, flight data recorder or combined cockpit voice recorder/flight data recorder required to be carried on the helicopter or gyroplane must be so constructed and installed that the data recorded (in this Scale referred to as "protected data") would be likely to be preserved in the event of an accident.

(6) Each cockpit voice recorder, flight data recorder or combined cockpit voice recorder/ flight data recorder required to be carried on the helicopter or gyroplane must have attached an automatically activated underwater sonar location device or an emergency locator radio transmitter.

(7) A helicopter or gyroplane is not required to carry the equipment specified in paragraphs (1) to (3) if, before take-off, the equipment is found to be unserviceable and the aircraft flies in accordance with arrangements approved by the Department.

(8) A vibration health monitoring system capable of monitoring the vibration of critical helicopter rotor and rotor drive system components.

Scale T

An underwater sonar location device.

Scale U

(1) One survival beacon radio apparatus.

(2) Marine type pyrotechnical distress signals.

(3) For each four or proportion of four persons on board, 100 grammes of glucose toffee tablets.

(4) For each four or proportion of four persons on board, ½ litre of fresh water in durable containers.

(5) First aid equipment.

Scale V

(1) One survival beacon radio apparatus.

(2) Marine type pyrotechnical distress signals.

(3) For each four or proportion of four persons on board, 100 grammes of glucose toffee tablets.

(4) For each four or proportion of four persons on board, ½ litre of fresh water in durable containers.

(5) First aid equipment.

(6) For every 75 or proportion of 75 persons on board, 1 stove suitable for use with aircraft fuel.

(7) One cooking utensil, in which snow or ice can be melted.

(8) Two snow shovels.

(9) Two ice saws.

(10) Single or multiple sleeping-bags, sufficient for the use of one-third of all persons on board.

(11) One arctic suit for each member of the crew of the aircraft.

Scale W

(1) Subject to paragraph (2), cosmic radiation detection equipment calibrated in millirems per hour and capable of indicating the action and alert levels of radiation dose rate.

(2) An aircraft is not required to carry the equipment if—

(a) before take-off the equipment is found to be unserviceable and it is not reasonably practicable to repair or replace it at the aerodrome of departure; and

(b) the radiation forecast available to the commander of the aircraft indicates that hazardous radiation conditions are unlikely to be encountered by the aircraft on its intended route or any planned diversion from that route.

Scale X

(1) Subject to paragraph (3), a Terrain Awareness and Warning System known as Class A, being equipment capable of giving warning to the pilot of the potentially hazardous proximity of ground or

water, including excessive closure rate to terrain, flight into terrain when not in landing configuration, excessive downward deviation from an instrument landing system glideslope, a predictive terrain hazard warning function and a visual display.

(2) Subject to paragraph (3), a Terrain Awareness and Warning System known as Class B, being equipment capable of giving warning to the pilot of the potentially hazardous proximity of ground or water, including a predictive terrain hazard warning function.

(3) If the equipment becomes unserviceable, the aircraft may fly or continue to fly until it first lands at a place at which it is reasonably practicable for the equipment to be repaired or replaced.

Scale Z

(1) An emergency lighting system to provide illumination in the passenger compartment sufficient to facilitate the evacuation of the aircraft notwithstanding the failure of the lighting systems specified in paragraph (2) of Scale G.

(2) An emergency lighting system to provide illumination outside the aircraft sufficient to facilitate the evacuation of the aircraft.

SCHEDULE 4

Article 34

Radio communication and radio navigation equipment of aircraft

1. Subject to paragraph 2, every aircraft which must carry equipment specified in this Schedule must be provided, when flying in the circumstances specified in the first column of the Table in paragraph 5 of this Schedule, with the scales of equipment respectively indicated in the second column of that Table.

2. In the case of sub-paragraphs (1), (3), (4), (5), (6), (8) and (9) of paragraph 5, the specified equipment need not be carried if the appropriate air traffic control unit permits flight to commence without that equipment and the aircraft complies with any instructions which the air traffic control unit may give in the particular case.

3. An aircraft which is not a commercial air transport aeroplane or a commercial air transport aircraft and which is flying in Class D or Class E airspace need not carry distance measuring equipment in accordance with paragraph (b) of Scale F when flying in the circumstances specified in sub-paragraph (1)(a) of paragraph 5.

4. If an aircraft is flying in a combination of circumstances specified in the first column of the Table in paragraph 5 the scales of equipment are not on that account required to be duplicated.

5. Table

Aircraft and circumstances of flight	*Scale of equipment required*								
	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*J*
(1) All aircraft (other than gliders) within the Isle of Man—									
(a) flying under Instrument Flight Rules within controlled airspace	A				E2	F			
(b) flying within controlled airspace	A								
(c) making an approach to landing at an aerodrome notified for the purpose of this sub-paragraph							G		

Aircraft and circumstances of flight	*Scale of equipment required*								
	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*J*
(d) flying within controlled airspace of Class A, B or C					E2				
(e) flying at night	A								
(f) conducting extended flights over water	A								
(g) conducting flights over land areas where search and rescue would be especially difficult	A								
(2) All multi-engined aircraft within the Isle of Man when flying under Visual Flight Rules	A								
(3) All aircraft within the Isle of Man —									
(a) flying at or above flight level 195	A								
(b) flying within airspace notified for the purpose of this sub-paragraph	A								
(4) All gliders and SLMGs within the Isle of Man —									
(a) flying at or above flight level 100 except when flying within airspace notified for the purposes of this sub-paragraph,					E2				
(b) flying under Instrument Flight Rules within controlled airspace,					E2				
(c) flying within controlled airspace of Class A, B or C except when flying within airspace notified as a Temporary Reserved Area (Gliding), or					E2				
(d) flying within airspace notified for the purposes of this sub-paragraph					E2				
(5) All aircraft (other than gliders) within the Isle of Man —									
(a) flying at or above flight level 245,					E2	F			
(b) flying within airspace notified for the purpose of this sub-paragraph, or					E2				
(c) flying at or above flight level 100					E2				
(6) When flying under Instrument Flight Rules within airspace notified for the purposes of this paragraph—									
(a) all aeroplanes having a maximum take-off mass authorised of not more than 5700 kg and a maximum cruising true airspeed capability of not more than 250 knots					E2				
(b) all rotorcraft					E2				
(c) all aeroplanes having either a maximum take-off mass authorised of more than 5700 kg or a					E3				

Aircraft and circumstances of flight	*Scale of equipment required*								
	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*J*
maximum cruising true airspeed capability of more than 250 knots									
(7) All aircraft required to carry Scale E2 or E3					EE				
(8) All aeroplanes—							G		
(a) registered in the Isle of Man, and									
(b) wherever registered, when flying in the Isle of Man,									
while making an approach to landing									
(9) All aircraft (other than gliders and SLMGs) registered in the Isle of Man, wherever they may be, when flying under Instrument Flight Rules	A			D				H	
(10) All aeroplanes registered in the Isle of Man, wherever they may be, and all aeroplanes wherever registered when flying in the Isle of Man, powered by one or more turbine jets or turbine propeller engines and either having a maximum take-off mass of more than 15,000 kg or with a maximum approved passenger seating configuration of more than 30									J
(11) All aeroplanes powered by one or more turbine jets or turbine propeller engines and either having a maximum take-off mass of more than 5,700 kg or with a maximum approved passenger seating configuration of more than 19, which are —									J
(a) registered in the Isle of Man and flying within the airspace of the member states of the European Civil Aviation Conference, or									
(b) flying in the Isle of Man.									

6. The scales of radio communication and radio navigation equipment indicated in the Table at paragraph 3 are as follows—

Scale A

Radio communication equipment capable of maintaining direct two-way communication with the appropriate air traffic control units on the intended route using the frequencies notified or otherwise designated by the competent authority for that purpose.

Scale D

Radio navigation equipment capable of receiving signals from one or more aeronautical radio stations on the surface to enable the aircraft to be guided to a point from which a visual landing can be made at the aerodrome at which the aircraft is to land.

Scale E2

Secondary surveillance radar equipment which includes a pressure altitude reporting transponder capable of operating in Mode A and Mode C and has the capability and functionality prescribed for Mode S Elementary Surveillance and is capable of being operated in accordance with such instructions as may be given to the aircraft by the air traffic control unit.

Scale E3

Secondary surveillance radar equipment which includes a pressure altitude reporting transponder capable of operating in Mode A and Mode C and has the capability and functionality prescribed for Mode S Enhanced Surveillance and is capable of being operated in accordance with such instructions as may be given to the aircraft by the air traffic control unit.

Scale EE

The aircraft must, in the circumstances specified in paragraph 2.1.5.3 of Volume IV (Fourth Edition July 2007) of Annex 10 to the Chicago Convention, comply with the requirements for antenna diversity set out in that paragraph.

Scale F

Radio communication and radio navigation equipment capable of enabling the aircraft to be navigated along the intended route including—

(a) automatic direction finding equipment;

(b) distance measuring equipment; and

(c) VHF omni-range equipment.

Scale G

Radio navigation equipment capable of enabling the aircraft to make an approach to landing using the Instrument Landing System.

Scale H

(1) Subject to paragraphs (2) and (3), radio navigation equipment capable of enabling the aircraft to be navigated on the intended route including—

(a) distance measuring equipment;

(b) duplicated VHF omni-range equipment; and

(c) a 75 MHz marker beacon receiver.

(2) An aircraft may fly notwithstanding that it does not carry the equipment specified in this Scale if it carries alternative radio navigation equipment or navigational equipment approved in accordance with article 32(6).

(3) Where only one item of equipment specified in this Scale is unserviceable when the aircraft is about to begin a flight, the aircraft may nevertheless take off on that flight if—

(a) it is not reasonably practicable for the repair or replacement of that item to be carried out before the beginning of the flight;

(b) the aircraft has not made more than one flight since the item was last serviceable; and

(c) the commander of the aircraft is satisfied that the flight can be made safely and in accordance with any relevant requirements of the appropriate air traffic control unit, taking into account the latest information available as to the route and aerodrome to be used (including any planned diversion) and the weather conditions likely to be encountered.

Scale J

An airborne collision avoidance system.

7. In this Schedule—

(a) "Airborne collision avoidance system" means an aeroplane system which—

(i) conforms to requirements prescribed for the purpose;

(ii) is based on secondary surveillance radar transponder signals;

(iii) operates independently of ground based equipment; and

(iv) is designed to provide advice and appropriate avoidance manoeuvres to the pilot in relation to other aeroplanes which are equipped with secondary surveillance radar and are in undue proximity;

(b) "Automatic direction finding equipment" means radio navigation equipment which automatically indicates the bearing of any radio station transmitting the signals received by such equipment;

(c) "Distance measuring equipment" means radio equipment capable of providing a continuous indication of the aircraft's distance from the appropriate aeronautical radio stations;

(d) "Mode A" means replying to an interrogation from secondary surveillance radar units on the surface to elicit transponder replies for identity and surveillance with identity provided in the form of a four digit identity code;

(e) "Mode C" means replying to an interrogation from secondary surveillance radar units on the surface to elicit transponder replies for automatic pressure-altitude transmission and surveillance;

(f) "Secondary surveillance radar equipment" means such type of radio equipment as may be notified as being capable of—

(i) replying to an interrogation from secondary surveillance radar units on the surface; and

(ii) being operated in accordance with such instructions as may be given to the aircraft by the appropriate air traffic control unit;

(g) "VHF omni-range equipment" means radio navigation equipment capable of giving visual indications of bearings of the aircraft by means of signals received from very high frequency omni-directional radio ranges.

SCHEDULE 5

Article 29

Aircraft, engine and propeller log books

Aircraft log book

1. The following entries must be included in the aircraft log book—

(a) the name of the constructor, the type of the aircraft, the number assigned to it by the constructor and the date of the construction of the aircraft;

(b) the nationality and registration marks of the aircraft;

(c) the name and address of the operator of the aircraft;

(d) the date of each flight and the duration of the period between take-off and landing, or, if more than one flight was made on that day, the number of flights and the total duration of the periods between take-offs and landings on that day;

(e) subject to paragraph 2, detailed information about all maintenance work carried out on the aircraft or its equipment;

(f) subject to paragraph 2, detailed information about any defects occurring in the aircraft or in any equipment required to be carried by or under this Order, and of the action taken to rectify such defects; and

(g) subject to paragraph 2, detailed information about any overhauls, repairs, replacements and modifications relating to the aircraft or any such equipment as aforesaid.

2. Entries are not required to be made under paragraph 1(e), (f) and (g) for any engine or variable pitch propeller.

Engine log book

3. The following entries must be included in the engine log book—

(a) the name of the constructor, the type of engine, the number assigned to it by the constructor and the date of the construction of the engine;

(b) the nationality and registration marks of each aircraft in which the engine is fitted;

(c) the name and address of the operator of each such aircraft;

(d) either—

(i) the date of each flight and the duration of the period between take-off and landing or, if more than one flight was made on that day, the number of flights and the total duration of the periods between take-offs and landings on that day; or

(ii) the aggregate duration of periods between take-off and landing for all flights made by that aircraft since the immediately preceding occasion that any maintenance, overhaul, repair, replacement, modification or inspection was undertaken on the engine;

(e) detailed information about all maintenance work done on the engine;

(f) detailed information about any defects occurring in the engine, and of the rectification of such defects; and

(g) detailed information about all overhauls, repairs, replacements and modifications relating to the engine or any of its accessories.

Variable pitch propeller log book

4. The following entries must be included in the variable pitch propeller log book—

(a) the name of the constructor, the type of propeller, the number assigned to it by the constructor and the date of the construction of the propeller;

(b) the nationality and registration marks of each aircraft, and the type and number of each engine, to which the propeller is fitted;

(c) the name and address of the operator of each such aircraft;

(d) either—

(i) the date of each flight and the duration of the period between take-off and landing or, if more than one flight was made on that day, the number of flights and the total duration of the periods between take-offs and landings on that day; or

(ii) the aggregate duration of periods between take-off and landing for all flights made by that aircraft since the immediately preceding occasion that any maintenance, overhaul, repair, replacement, modification or inspection was undertaken on the propeller;

(e) detailed information about all maintenance work done on the propeller;

(f) detailed information about any defects occurring in the propeller, and of the rectification of such defects; and

(g) detailed information about any overhauls, repairs, replacements and modifications relating to the propeller.

SCHEDULE 6

Articles 39 and 42

Flight crew licences

Article 42(1)

PART 1

Categories

Aeroplane pilots

United Kingdom National Private Pilot's Licence (Aeroplanes)

Private Pilot's Licence (Aeroplanes)

Commercial Pilot's Licence (Aeroplanes)

Airline Transport Pilot's Licence (Aeroplanes)

Helicopter pilots

Private Pilot's Licence (Helicopters)

Commercial Pilot's Licence (Helicopters)

Airline Transport Pilot's Licence (Helicopters)

Other flight crew

Flight Navigator's Licence

Flight Engineer's Licence

Flight Radiotelephony Operator's Licence

Article 39(1)

PART 2

Exceptions to flight licence requirement

Exception to act as flight radiotelephony operator

1.—(1) A person may act as a flight radiotelephony operator within the Isle of Man without being the holder of an appropriate licence rendered valid under this Order, if the conditions in sub-paragraph (2) apply.

(2) The conditions referred to in sub-paragraph (1) are that the person is—

(a) the pilot of a glider on a private flight and does not communicate by radiotelephony with any air traffic control unit, flight information unit or air/ground communications service unit; or

(b) being trained in an aircraft registered in the Isle of Man to perform duties as a member of the flight crew of an aircraft and is authorised to operate the radiotelephony station by the holder of the licence granted for that station under any enactment.

Exception for solo flying training

2.—(1) A person may act as the pilot in command of an aircraft for the purpose of becoming qualified for the grant or renewal of a pilot's licence or the inclusion or variation of any rating in a pilot's licence within the Isle of Man, without being the holder of an appropriate licence rendered valid under this Order, if the conditions in sub-paragraph (2) are satisfied.

(2) The conditions referred to in sub-paragraph (1) are that—

(a) the person is at least 16 years of age;

(b) the person is the holder of a valid medical certificate to the effect that the person is fit to act as pilot in command, issued by a person approved by the Department;

(c) the person complies with any conditions subject to which that medical certificate was issued;

(d) no other person is carried in the aircraft;

(e) the aircraft is not flying for the purpose of commercial air transport or aerial work other than aerial work which consists of the giving of instruction in flying or the conducting of flying tests; and

(f) the person acts in accordance with instructions given by another person holding a pilot's licence rendered valid under this Order or a JAA licence, in each case being a licence which includes a flight instructor rating, a flying instructor's rating or an assistant flying instructor's rating entitling that other person to give instruction in flying the type of aircraft being flown.

Exception for dual flying training

3.—(1) A person may act as the pilot of an aircraft of which the flight crew required to be carried by or under this Order is not more than one pilot for the purpose of becoming qualified for the grant or renewal of a pilot's licence or the inclusion or variation of any rating in a pilot's licence within the Isle of Man, without being the holder of an appropriate licence rendered valid under this Order, if the conditions in sub-paragraph (2) are satisfied.

(2) The conditions referred to in sub-paragraph (1) are that—

(a) the aircraft is not flying for the purpose of commercial air transport or aerial work other than aerial work which consists of the giving of instruction in flying or the conducting of flying tests;

(b) the person acts in accordance with instructions given by another person holding a pilot's licence rendered valid under this Order or a JAA licence, in each case being a licence which includes a flight instructor rating, a flying instructor's rating or an assistant flying instructor's rating entitling that other person to give instruction in flying the type of aircraft being flown; and

(c) either —

(i) the aircraft is fitted with dual controls and the person is accompanied in the aircraft by the instructor who is seated at the other set of controls; or

(ii) the aircraft is fitted with controls designed for and capable of use by two persons and the person is accompanied in the aircraft by the instructor who is seated so as to be able to use the controls.

Exception for gyroplanes at night

4.—(1) A person may act as pilot in command of a gyroplane at night within the Isle of Man without being the holder of an appropriate licence rendered valid under this Order if the conditions in sub-paragraph (2) are satisfied.

(2) The conditions referred to in sub-paragraph (1) are that—

(a) the person is the holder of an appropriate licence rendered valid under this Order in all respects save that—

(i) the licence does not include an instrument rating; and

(ii) the person has not within the immediately preceding 13 months carried out as pilot in command at least five take-offs and five landings at a time when the depression of the centre of the sun was not less than 12° below the horizon;

(b) the person so acts in accordance with instructions given by another person holding a pilot's licence rendered valid under this Order or a JAA licence, being a licence which includes a flight instructor rating, a flying instructor's rating or an assistant flying instructor's rating entitling that other person to give instruction in flying the type of gyroplane being flown;

(c) no person other than the instructor is carried; and

(d) the gyroplane is not flying for the purpose of commercial air transport or aerial work other than aerial work which consists of the giving of instruction in flying or the conducting of flying tests.

Exception for balloons

5.—(1) A person may act as pilot in command of a balloon within the Isle of Man, without being the holder of an appropriate licence granted or rendered valid under this Order if the conditions in sub-paragraph (2) are satisfied.

(2) The conditions referred to in sub-paragraph (1) are that—

(a) the person is the holder of an appropriate licence rendered valid under this Order in all respects save that the person has not within the immediately preceding 13 months carried out as pilot in command at least five flights each of not less than five minutes duration;

(b) the person acts in accordance with instructions given by a person authorised by the Department to supervise flying in the type of balloon being flown;

(c) no person other than one specified in sub-paragraph (b) is carried; and

(d) the balloon is not flying for the purpose of commercial air transport or aerial work other than aerial work which consists of the giving of instruction in flying or the conducting of flying tests.

Exception for pilot undergoing training or tests

6.—(1) Unless the certificate of airworthiness in force for the aircraft otherwise requires, a person may act as pilot of an aircraft registered in the Isle of Man for the purpose of undergoing training or tests for the grant or renewal of a pilot's licence or for the inclusion, renewal or extension of a rating without being the holder of an appropriate licence, if the conditions in sub-paragraphs (2), (3) and (4) are satisfied.

(2) The condition first referred to in sub-paragraph (1) is that no other person is carried in the aircraft or in an aircraft which it is towing except—

(a) a person carried as a member of the flight crew in compliance with this Order;

(b) a person authorised by the Department to witness the training or tests or to conduct the tests; or

(c) if the pilot in command of the aircraft is the holder of an appropriate licence, a person carried for the purpose of being trained or tested as a member of the flight crew of an aircraft.

(3) The conditions secondly referred to in sub-paragraph (1) are that the person acting as the pilot of the aircraft without being the holder of an appropriate licence—

(a) within the preceding six months was serving as a qualified pilot of an aircraft in any of Her Majesty's naval, military or air forces; and

(b) the person's physical condition has not, so far as the person is aware, so deteriorated during that period as to render the person unfit for the licence or rating for which the training or tests are being given or conducted.

(4) The conditions thirdly referred to in sub-paragraph (1) are that the person acting as the pilot of the aircraft without being the holder of an appropriate licence—

(a) holds a pilot's, a flight navigator's or a flight engineer's licence rendered valid under article 42;

(b) the purpose of the training or tests is to enable that person to qualify under this Order for the grant of a pilot's licence or for the inclusion of an additional type in the aircraft rating in that person's licence; and

(c) the person acts under the supervision of another person who is the holder of an appropriate licence.

Exception for navigators and flight engineers

7. A person may act as a member of the flight crew (otherwise than as a pilot) of an aircraft registered in the Isle of Man without being the holder of an appropriate licence if—

(a) the flight is for the purpose of undergoing training or tests for the grant or renewal of a flight navigator's or a flight engineer's licence or for the inclusion, renewal or extension of a rating in such a licence; and

(b) the person acts under the supervision and in the presence of another person who is the holder of the type of licence or rating for which the person undergoing the training or tests is being trained or tested.

SCHEDULE 7

Article 84

Documents to be carried

Circumstances in which documents are to be carried

1.—(1) On a private flight which is international air navigation, Documents A, B, C, F, G, I and K must be carried.

(2) On a flight made in accordance with the terms of a permission granted to the operator under article 35(2), Document J must be carried.

Description of documents

2. For the purposes of this Schedule—

(a) "Document A" means the licence in force under the Wireless Telegraphy Act 2006(**6**) for the aircraft radio station installed in the aircraft;

(b) "Document B" means the certificate of airworthiness in force for the aircraft, including the latest revision of the flight manual, pilot's operating handbook or performance schedule issued by the aircraft's Type Certificate Holder;

(c) "Document C" means the licences of the members of the flight crew of the aircraft;

(d) "Document F" means the technical log, if any, in which entries are required to be made under article 23(2);

(e) "Document G" means the certificate of registration in force for the aircraft;

(f) "Document I" means a copy of the notified procedures to be followed by the pilot in command of an intercepted aircraft, and the notified visual signals for use by intercepting and intercepted aircraft;

(g) "Document J" means the permission, if any, granted for the aircraft under article 35(2);

(h) "Document K" means a list of the names of any passengers and their places of embarkation and destination, or the cargo manifest, or both those documents.

SCHEDULE 8

Article 125(1)(a)

Air traffic service equipment - records required and matters to which the Department may have regard

PART 1

Records to be kept in accordance with article 125(1)(a)

1. A record of any functional tests, flight checks and detailed information about any maintenance, repair, overhaul, replacement or modification.

2. Subject to paragraph 3, the record must be kept in a legible or a non-legible form. If the record is kept in a non-legible form it must be capable of being reproduced in a legible form and it must be so reproduced by the person required to keep the record if requested by an authorised person.

3. In any particular case the Department may direct that the record is kept or be capable of being reproduced in such a form as it may specify.

PART 2

Records required in accordance with article 125(5)(b)

Each record made by the apparatus provided in compliance with article 125(2) or 125(3) must be adequately identified and in particular must include—

(a) the identification of the aeronautical radio station;

(b) the date or dates on which the record was made;

(c) a means of determining the time at which each message or signal was transmitted or received;

(**6**) 2006 c.36.

(d) the identity of the aircraft to or from which and the radio frequency on which the message or signal was transmitted or received; and

(e) the time at which the record started and finished.

PART 3

Matters to which the Department may have regard in granting an approval of apparatus in accordance with article 125(6)

4. The purpose for which the apparatus is to be used.

5. The manner in which the apparatus has been specified and produced in relation to the purpose for which it is to be used.

6. The adequacy, in relation to the purpose for which the apparatus is to be used, of the operating parameters of the apparatus (if any).

7. The manner in which the apparatus has been or will be operated, installed, modified, maintained, repaired and overhauled.

8. The manner in which the apparatus has been or will be inspected.

SCHEDULE 9

Article 129(7)

Information and instructions which must be included in an aerodrome manual

1. The name and status of the accountable manager having corporate authority for ensuring that all operations activities can be financed and carried out to the standard required.

2. The names and status of other senior aerodrome operating staff and instructions as to the order and circumstances in which they may be required to act.

3. Details of the safety management system.

4. The system of aeronautical information service available.

5. Procedures for promulgating information concerning the aerodrome's state.

6. Procedures for the control of access, vehicles and work in relation to the aerodrome manoeuvring area and apron.

7. Procedures for complying with article 142 and for the removal of disabled aircraft.

8. In the case of an aerodrome which has facilities for fuel storage, procedures for complying with article 134.

9.—(1) Subject to sub-paragraph (2), plans to an appropriate scale which clearly depict the layout of runways, taxiways and aprons, aerodrome markings, aerodrome lighting if such lighting is provided, and the siting of any navigational aids within the runway strip.

(2) In the case of copies or extracts of the manual provided or made available to a member of the aerodrome operating staff, the plans must be of a scale reasonably appropriate for the purposes of article 129(9).

10. For an aerodrome in relation to which there is a notified instrument approach procedure, survey information sufficient to provide data for the production of aeronautical charts relating to that aerodrome.

11. Description, height and location of obstacles which infringe standard obstacle limitation surfaces, and whether they are lit.

12. Data for and method of calculation of declared distances and elevations at the beginning and end of each declared distance.

13. Method of calculating reduced declared distances and the procedure for their promulgation.

14. Details of surfaces and bearing strengths of runways, taxiways and aprons.

15. The system of the management of air traffic in the airspace associated with the aerodrome, including procedures for the co-ordination of traffic with adjacent aerodromes, except any such information or procedures already published in any manual of air traffic services.

16. Operational procedures for the routine and special inspection of the aerodrome manoeuvring area and aprons.

17. If operations are permitted during periods of low visibility, procedures for the protection of the runways during such periods.

18. Procedures for the safe integration of all aviation activities undertaken at the aerodrome.

19. Details of or reference to the bird control management plan.

20. Procedures for the use and inspection of the aeronautical ground lighting system, if such a system is provided.

21. The scale of rescue, first aid and fire service facilities, the aerodrome emergency procedures and procedures to be adopted in the event of temporary depletion of the rescue and fire service facilities.

SCHEDULE 10

Articles 110, 113 and 123

Air Traffic Controllers – Licences, Ratings, Endorsements And Maintenance Of Licence Privileges

PART 1

Air Traffic Controller Licences

Air Traffic Controller's Licence

1. The privileges of an air traffic controller's licence are to—

(a) act as an air traffic controller for any sector or operational position for which a valid rating and endorsement and current unit endorsement are included in the licence; and

(b) exercise the privileges of a student air traffic controller's licence.

Student Air Traffic Controller's Licence

2. The privileges of a student air traffic controller's licence are to act as an air traffic controller under the supervision of another person who is present at the time and who—

(a) is the holder of an air traffic controller's licence entitling the holder to provide unsupervised the type of air traffic control service which is being provided by the student air traffic controller; and

(b) is an on-the-job training instructor.

PART 2

Ratings, Rating Endorsements and Licence Endorsements

Inclusion of ratings, rating endorsements and licence endorsements

3.—(1) A licence validated under article 122 may contain the ratings, rating endorsements and licence endorsements of the classes contained in paragraphs 5 and 6.

(2) The inclusion of a rating, rating endorsement or licence endorsement has the consequences specified in relation to it.

Exercise of more than one function

4.—(1) Subject to sub-paragraph (2), the holder of a licence that includes ratings of two or more of the classes specified in paragraph 5 must not at any one time perform the functions specified in respect of more than one of those ratings.

(2) The functions of the following ratings may be exercised at the same time—

(a) an Aerodrome Control Instrument Rating and an Approach Control Procedural Rating; and

(b) an Aerodrome Control Instrument Rating and an Approach Control Surveillance Rating, provided that the holder does not exercise the functions of any rating endorsement described in paragraph 2(a) to (c) of article 7 of the air traffic controllers' directive included in the Approach Control Surveillance Rating.

(3) When a surveillance radar approach terminating at a point less than 2 nautical miles from the point of intersection of the glide path with the runway is being provided under an approach control surveillance rating, no other function under the approach control surveillance rating may be exercised at the same time.

Ratings and Rating Endorsements

5.—(1) There are the following classes of aerodrome control ratings and endorsements—

(a) the Aerodrome Control Visual Rating (ADV) as described in article 6 of the air traffic controllers' directive;

(b) the Aerodrome Control Instrument Rating (ADI) as described in article 6 of the air traffic controllers' directive;

(c) the Aerodrome Control Instrument rating must be accompanied by at least one of the rating endorsements described in paragraph 1 of article 7 of the air traffic controllers' directive.

(2) There are the following classes of approach control ratings and endorsements—

(a) the Approach Control Procedural Rating (APP) as described in article 6 of the air traffic controllers' directive;

(b) the Approach Control Surveillance Rating (APS) as described in article 6 of the air traffic controllers' directive;

(c) the Approach Control Surveillance Rating must be accompanied by at least one of the following—

(i) a rating endorsement described in paragraph 2 of article 7 of the air traffic controllers' directive;

(ii) the Multilateration Endorsement (MLT), which indicates that the holder is competent to provide an approach control service with the use of multilateration;

(iii) the Offshore Rating Endorsement entitles the holder of a Radar Endorsement to provide an offshore service;

(iv) the Special Tasks Rating Endorsement which entitles the holder of a Radar, Automatic Dependent Surveillance or Multilateration Endorsement to provide a special tasks service.

(3) There are the following classes of area control ratings and endorsements—

(a) the Area Control Procedural Rating (ACP) as described in article 6 of the air traffic controllers' directive;

(b) the Area Control Procedural Rating may be accompanied by an Oceanic Control Rating Endorsement which entitles the holder to provide an area control service in the Shanwick Oceanic Control Area;

(c) the Area Control Surveillance Rating (ACS) as described in article 6 of the air traffic controllers' directive;

(d) the Area Control Surveillance Rating must be accompanied by at least one of the following—

(i) a rating endorsement described in paragraph 3 of article 7 of the air traffic controllers' directive;

(ii) the Multilateration Endorsement (MLT) which indicates that the holder is competent to provide an area control service with the use of multilateration;

(iii) an Offshore Rating Endorsement which entitles the holder of a Radar Endorsement to provide an offshore service;

(iv) a Special Tasks Rating Endorsement which entitles the holder of a Radar Automatic Dependent Surveillance or Multilateration Endorsement to provide a special tasks service.

Licence Endorsements

6. There are the following classes of licence endorsement—

(a) an Examiner Licence Endorsement (which is valid for a period of three years) entitles the holder to sign a unit endorsement in respect of—

(i) the air traffic control services that the air traffic controller licence entitles the holder to provide; or

(ii) such other air traffic control services as the CAA may authorise for that holder;

(b) an On-the-job Training Instructor Endorsement (which is valid for a period of three years) as described in article 9 of the air traffic controllers' directive;

(c) a Unit Endorsement as described in article 10 of the air traffic controllers' directive;

(d) a Language Endorsement.

SCHEDULE 11 Article 155

Penalties

PART 1

Provisions referred to in article 155(5)

Article of Order	*Subject matter*
6(6)	Aircraft to fly in accordance with conditions in aircraft dealer's certificate
7(1)	Certificate of registration to be returned
7(2)	Registered owner to inform Department of specified events
7(3)	Person who becomes the owner of aircraft registered in the Isle of Man must inform Department
20(4)	Requirement for placard
20(5)	Requirement to fly by day and in accordance with Visual Flight Rules
21(3)	Restriction on purposes of flight by aircraft with a certificate of validation
23(8)	Carriage and keeping of technical log
23(10)	Preservation of technical log
28(3)	Acting when physically or mentally unfit to act
29(6)	Preservation of log books
30(4)	Preservation of mass schedule
52(4)	Pilot to be secured in seat
52(5)	Safety harness to be worn during take-off and landing a
52(6)	Operator not to permit helicopter rotor to be turned unless pilot at controls
54(1)	Loading aircraft
55(1)	Carriage of baggage
84(1)	Documents to be carried
88(1) and 88(3)	Production of documents and records
90	Preservation of documents
91(5)	Requirement to inform Department of departure from Rules of the Air
115(1) and (2)	Requirement to inform air navigation service provider
116	Air navigation service provider to keep records
118	Incapacity of air traffic controller
121	Not to act as air traffic controller or student air traffic controller where exams, etc. failed
124(3)	Requirement to inform aeronautical radio station service
125(1)	Requirement to keep air service equipment records

Article of Order	*Subject matter*
125(4)	Capability of recording apparatus
125(5)	Operation of recording apparatus
125(8) and 125(9)	Requirement where apparatus ceases to be capable of recording or becomes unserviceable
125(10), 125(12) to 125(15)	Air traffic service equipment records
129(3)	Requirement to supply information
130(4)	Requirement for holder of public use licence to notify
131	Requirement for holder of public use licence to supply information to the Department
132	Requirement to make air navigation facilities available
140(1)	Filing and approval of tariffs
144(3)	Requirement to surrender document to Department
145(7)	Requirement to surrender permit to the Department

PART 2

Provisions referred to in article 155(6)

Article of Order	*Subject matter*
3(1)	Aircraft to be registered
10(1)	Aircraft not to fly unless it has nationality and registration marks
10(3)	Aircraft not to bear misleading marks
13(1)	Compliance with operational directives
20(1)	Restrictions on purposes of flight by aircraft with national permit to fly
20(2)	Restrictions on carriage of persons by aircraft with national permit to fly
22	Requirement to maintain in accordance with approved maintenance programme
23(2)	Requirement for technical log
23(4)	Entries in technical log
23(7)	Certificate to be entered in technical log
24(2)	Requirement for certificate of release to service
24(4)	Information to be given by commander
24(6)	Certain equipment not to be placed on board
24(7)	Certain radio equipment not to be placed on board
29(1), (2), (3) and (5)	Requirements for log books
30(2)	Requirement for weighing and determining centre of gravity

Article of Order	*Subject matter*
30(3)	Mass schedule to be prepared
30(4)	Mass schedule to be preserved
32(1), (2), (3) and (6)	Requirements for aircraft to carry equipment
33	Carriage and use of equipment
34	Requirements to carry radio communication and radio navigation equipment
35(3)	Carriage of minimum equipment
36	Required flight crew
37(3)	Flight crew required by aircraft registered in the Isle of Man
38	Compliance with direction to carry additional crew
41(2) and (3)	Permission required where licence does not meet relevant minimum standards
44	Person not to act as member of flight crew when unfit
45(2)	Requirement for giving flying instructions
46(2)	Pre-flight action by commander of aircraft
47	Commander to be satisfied that flight can be safely completed
48	Passenger briefing by commander
49	Commander to demonstrate use of the lifejackets
50	Commander to ensure crew, passengers and baggage secure
51	Commander to demonstrate use of oxygen on aerial work and private flights
52(2) and 52(3)	Pilots to remain at controls
53	Commander's duty concerning the loading of aircraft
57	Aerodrome operating minima requirements for aerial work and private aircraft
58	Commander to be satisfied that additional survival equipment carried
59	Operation of radio in aircraft
60	Requirement for operation of airborne collision avoidance system
61	Training in operation of airborne collision avoidance system
62	Person not to be in specified parts of aircraft in flight or object towed or attached
63(2)	Operator to ensure marking of break-in areas
65	Requirements concerning equipment when flying in NAMNPS airspace
66	Requirements concerning equipment when aircraft registered in Isle of Man flying in RVSM airspace
67	Requirements concerning equipment for aircraft registered in the Isle of Man flying in RNP airspace
76	Smoking in aircraft
77	Requirement to comply with lawful commands of commander of aircraft

Article of Order	*Subject matter*
78(a) and (b)	Acting in a disruptive manner
79	Stowaways
81(2)	Flight crew member's obligation to inform operator or flight times
82	Flight times – responsibilities of flight crew
86	Use of flight recording systems
87	Preservation of records of aeroplane flight data recorder
91(2)	Requirement to comply with Rules of the Air
92(4)	Requirement to comply with Restriction of Flying Regulations
92(5)	Requirement to leave restricted area
92(6)	Requirement to comply with instructions in restricted area or danger area
93(1) to 93(5) and 93(17)	Requirements for flying displays
94	Requirements for balloons
95	Requirements for gliders, kites and parascending parachutes
96	Requirements for airships
97	Requirements for small unmanned aircraft
98	Requirements for small unmanned surveillance aircraft
99	Requirements for rockets
101	Duty of person in charge to be satisfied as to competence of controllers
102	Obligations in respect of manual of air traffic services
103	Requirement to provide air traffic services
104(3)	Requirement to comply with air traffic direction
105	Use of radio callsigns at aerodromes
107	Prohibition of unlicensed air traffic controllers
124(1)	Requirement for approval for air traffic service equipment
125(2)	Provision of recording apparatus
126	Requirement to use licensed aerodrome
128	Lighting for helicopters flying for public transport at night
129(4)	Requirement to comply with aerodrome licence conditions
129(5)	Requirement to take reasonable steps to secure airspace safe for use by aircraft
129(7) to 129(10)	Requirements for aerodrome manual
134(1) and 134(2)	Obligations of person having management of fuel installation on an aerodrome
134(4) and 134(5)	Requirements to keep and produce records for fuel installation

Article of Order	*Subject matter*
135(1) and 135(3)	Requirements for aeronautical lights
136(2)	Requirements for lighting of en-route obstacles
137(1) and 137(2)	Lights liable to endanger not to be exhibited
138	Lights which dazzle or distract not to be shone
143	Requirements to report bird strikes
146(5)	Entries in log books
151	Compliance with direction to make data available
153	Obstruction of persons

PART 3

Provisions referred to in article 155(7)

Article of Order	*Subject matter*
11	Aircraft not to fly for commercial air transport or aerial work purposes
12	Offering commercial air transport flights
14(2)	Passenger and cargo manifest to be carried
14(3)	Copy of manifest to be left at aerodrome
15(1)	Aircraft not to fly without a certificate of airworthiness
15(3)	Aircraft to comply with flight manual
39(1)	Requirement for appropriate licence to act as member of flight crew of aircraft registered in the Isle of Man
40	Requirement for appropriate licence to act as member of flight crew of aircraft registered elsewhere than in the Isle of Man
64	Obligations of operator and commander when flying over foreign country
68(2)	Requirement to comply with regulations for the carriage of dangerous goods
69(1)	Requirements for carriage of munitions of war
69(2)	Prohibition on carriage of sporting weapon or munition of war where passengers have access
70	Prohibition on carrying on board sporting weapons or munitions of war
74	Endangering safety of any person or property
75	Drunkenness in aircraft
78(c)	Intentional interference
81(1)	Crew's obligation not to fly in dangerous state of fatigue
83	Protection of air crew from cosmic radiation
85	Keeping and production of records of exposure to cosmic radiation

Article of Order	*Subject matter*
100	Requirement for air traffic control approval
108	Prohibition of unlicensed student air traffic controllers
119	Obligation not to act as air traffic controller or student air traffic controller if fatigued
120	Student air traffic controller not to act under influence of drink or drug
134(6)	Aviation fuel not to be dispensed if not fit for use
134(7)	Compliance with direction not to dispense aviation fuel
139	Restrictions on carriage for valuable consideration in aircraft registered elsewhere than in the Isle of Man
141	Restriction on aerial photography, aerial survey and aerial work in aircraft registered elsewhere than in the Isle of Man
142(5) to 142(8)	Requirements to report occurrences
146 (except (5))	Prohibitions in relation to documents and records
147(3)	Flight in contravention of direction not to fly

PART 4

Provisions referred to in article 155(8)

Article of Order	*Subject matter*
73	Endangering safety of an aircraft