STATUTORY INSTRUMENTS

1990 No. 1514

CIVIL AVIATION

The Air Navigation (Noise Certification) Order 1990

Made - - - -	*24th July 1990*
Coming into force	*1st August 1990*

At the Court at Buckingham Palace, the 24th day of July 1990

Present,

The Queen's Most Excellent Majesty in Council

Whereas a draft of this Order has been laid before and approved by a resolution of each House of Parliament, in accordance with section 102(3) of the Civil Aviation Act 1982(**a**);

Now, therefore Her Majesty, in exercise of the powers conferred upon Her by sections 60(1), (2)(a) and (b), (3)(q) and (r), 61(1), 101(1)(a) and 102(1) and (2) of the said Act, section 2(2) of the European Communities Act 1972(**b**) and of all other powers enabling Her in that behalf, is pleased, by and with the advice of Her Privy Council, to order, and it is hereby ordered, as follows:

Citation and commencement

1. This Order may be cited as the Air Navigation (Noise Certification) Order 1990 and shall come into force on 1st August 1990.

Revocation

2. The Air Navigation (Noise Certification) Order 1987(**c**) is hereby revoked.

Interpretation

3.—(1) In this Order–

"an International Standard Atmosphere at sea level" has the meaning specified in Schedule 2 to this Order;

"authorised person" means any constable and any person authorised by the CAA (whether by name or by class or description) either generally or in relation to a particular case or class of cases;

"BCAR" means the British Civil Airworthiness Requirements Section N — Noise Issue 5 dated 1st August 1990 published by CAA, reference CAP 469;

"by-pass ratio" means the ratio of the air mass flow through the by-pass ducts of a gas turbine engine to the air mass flow through the combustion chambers calculated at maximum thrust when the engine is stationary in an International Standard Atmosphere at sea level;

(**a**) 1982 c.16.
(**b**) 1972 c.68.
(**c**) S.I. 1987/2212.

"dB(A)" means the unit for expressing A-weighted overall sound pressure level as specified in BCAR;

"EPNdB" means the unit for expressing effective perceived noise level as specified in BCAR;

"LAX" means the A-weighted noise energy of a single aircraft noise event as specified in BCAR;

"the CAA" means the Civil Aviation Authority;

"the Convention" means the Convention on International Civil Aviation signed on behalf of the United Kingdom at Chicago on 7th December 1944 6th edition published in 1980 by the International Civil Aviation Organisation, reference Doc 73006;

"derived version" means a modification of a prototype aircraft which, from the point of view of airworthiness, is similar to the prototype but incorporates changes in type design which may affect its noise characteristics adversely;

"noise certificate" means a certificate issued or validated or other document approved by the competent authority of a State to the effect that the aircraft to which the certificate or other document relates complies with the applicable noise certification requirements in force in that State;

"prescribed" means prescribed by Regulations made by the Secretary of State under this Order.

(2) Expressions used in this Order shall, unless the context otherwise requires, have the same respective meanings as in the Air Navigation Order 1989(a).

(3) A power to make Regulations under this Order shall include the power to make different provisions with respect to different classes of aircraft and with respect to different circumstances and to make such incidental and supplementary provisions as are necessary or expedient for carrying out the purposes of this Order.

Application of Order

4. This Order shall apply to–

(a) every propeller driven aeroplane having a maximum total weight authorised of 9,000kg or less;

(b) every aeroplane which is capable of sustaining level flight at a speed in excess of Flight Mach 1.0, being an aeroplane in respect of which applicable standards are specified in article 6(9) of this Order;

(c) every microlight aeroplane;

(d) every other subsonic aeroplane which in accordance with its certificate of airworthiness has a take-off distance required, at maximum total weight authorised on a hard level runway in still air in an International Standard Atmosphere at sea level, of more than 610 metres;

(e) every helicopter, being a helicopter in respect of which applicable standards are specified in article 6(10) of this Order.

Requirement of noise certificate

5.—(1) Subject to paragraph (3) of this article an aircraft to which this Order applies, other than an aeroplane to which paragraph (2) applies, shall not land or take-off in the United Kingdom unless–

(a) (i) in respect of an aircraft specified in paragraphs (a), (b), (d) and (e) of article 4 of this Order there is in force in respect of that aircraft a noise certificate–

(aa) issued by the CAA under article 6 of this Order; or

(bb) issued or validated by the competent authority of the country in which the aircraft is registered, being a country prescribed as one which applies standards which in the opinion of the Secretary of State are substantially equivalent to those required for the issue of a noise certificate by the CAA; or

(a) S.I. 1989/2004.

(cc) issued or validated in pursuance of the Convention by the competent authority of the State in which the aircraft is registered, and

(ii) in respect of an aeroplane specified in paragraph (c) of article 4 of this Order there is in force in respect of that aeroplane a noise certificate–

(aa) issued by the CAA under article 6 of this Order; or

(bb) issued or validated by the competent authority of the country in which the aeroplane is registered, being a country which applies standards which in the opinion of the CAA are substantially equivalent to those required for the issue of a noise certificate by the CAA, and

(b) any conditions subject to which the certificate was issued are complied with.

(2) A subsonic aeroplane registered in the United Kingdom after 1st November 1990 and powered by turbojet or turbofan engines which either has a maximum total weight authorised of more than 34,000kg or is capable of seating more than 19 passengers shall not take-off or land in the United Kingdom or in any other Member State of the European Community unless there is in force in respect of that aeroplane a noise certificate issued by the CAA certifying that the aeroplane complies with the standards specified in article 6(3) of this Order, and any conditions subject to which the certificate was issued are complied with.

(3) The prohibition in paragraph (1) of this article shall not apply to–

(a) an aircraft flying in accordance with the "A Conditions" or the "B Conditions" set forth in Schedule 2 to the Air Navigation Order 1989;

(b) an aircraft landing or taking-off at a prescribed place.

Issue of noise certificate by the Civil Aviation Authority and validity of noise certificate

6.—(1) The CAA shall issue a noise certificate in respect of any aircraft to which this Order applies if it is satisfied that the aircraft complies with the applicable standards specified in this article in relation to the noise made by the aircraft, and for that purpose the applicant for a certificate shall furnish such evidence and submit the aircraft to such flying trials and other tests as the CAA may require.

(2) The standards applicable to an aeroplane having turbojet or turbofan engines (not being an aeroplane of a description referred to in paragraphs (3) or (4) of this article) shall be those specified in Part I of Schedule 1 to this Order.

(3) Subject to paragraph (11) of this article, the standards applicable to an aeroplane having turbojet or turbofan engines which is of a description referred to in article 5(2) and which operates in the United Kingdom or in any other Member State of the European Community or which, in the opinion of the CAA–

(a) conforms to a prototype aeroplane in respect of which the competent authority received an application for a certificate of airworthiness on or after 6th October 1977 and did not reject that application; or

(b) conforms to a derived version of such a prototype aeroplane, being a derived version in respect of which the competent authority received an application to modify the certificate of airworthiness for the prototype on or after 6th October 1977 and did not reject that application,

shall be those specified in Part II of the said Schedule 1.

(4) Subject to paragraph (11) of this article, the standards applicable to an aeroplane having turbojet or turbofan engines (not being an aeroplane of a description referred to in article 5(2) unless it operates wholly outside the United Kingdom and the other Member States of the European Community) which, in the opinion of the CAA, conforms to a derived version of a prototype aeroplane (being a prototype in respect of which the competent authority received an application for a certificate of airworthiness before 6th October 1977 and did not reject that application and being a derived version in respect of which the competent authority received an application to modify the certificate of airworthiness for the prototype on or after the relevant date and did not reject that application) shall be those specified in Part III of the said Schedule 1; and the relevant date for an aeroplane having turbofan engines with a by-pass ratio of 2 or more is 6th October 1977 and for an aeroplane having turbojet or turbofan engines with a by-pass ratio of less than 2 is 26th November 1981.

(5) The standards applicable to a propeller driven aeroplane having a maximum total weight authorised of more than 9,000kg (not being an aeroplane of a description referred to in paragraphs (6) and (7) of this article) shall be those specified in Part IV of the said Schedule 1.

(6) The standards applicable to a propeller driven aeroplane having a maximum total weight authorised of more than 9,000kg, which in the opinion of the CAA–

(a) conforms to a prototype aeroplane being a prototype in respect of which the competent authority received an application for a certificate of airworthiness before 6th October 1977 and did not reject that application and in respect of which the certificate of airworthiness for the individual aeroplane was first issued on or after 26th November 1981; or

(b) conforms to a derived version of a prototype aeroplane being a prototype in respect of which the competent authority received an application for a certificate of airworthiness before 6th October 1977 and did not reject that application and in respect of which the certificate of airworthiness for the individual aeroplane was first issued on or after 26th November 1981,

shall be those specified in Part I of the said Schedule 1.

(7) Subject to paragraph (11) of this article, the standards applicable to a propeller driven aeroplane having a maximum total weight authorised of more than 9,000kg which in the opinion of the CAA–

(a) conforms to a prototype aeroplane being a prototype in respect of which the competent authority received an application for a certificate of airworthiness on or after 1st January 1985 and did not reject that application; or

(b) conforms to a derived version of such a prototype aeroplane, being a derived version in respect of which the competent authority received an application to modify the certificate of airworthiness for the prototype on or after 1st January 1985 and did not reject that application,

shall be those specified in Part II of the said Schedule 1.

(8)(a) Subject to paragraph (11) of this article, except in respect of an aeroplane specified in paragraph (c) of article 4 of this Order, the standards applicable to a propeller driven aeroplane having a maximum total weight authorised of 9,000kg or less which in the opinion of the CAA–

(i) conforms to a prototype aeroplane being a prototype in respect of which the competent authority received an application for a certificate of airworthiness before 1st January 1988 and did not reject that application; or

(ii) conforms to a derived version of a prototype aeroplane being a derived version in respect of which the competent authority received an application to modify the certificate of airworthiness for the prototype before 1st January 1988 and did not reject that application,

shall be those specified in Part V of the said Schedule 1.

(b) Subject to paragraph (11) of this article, except in respect of an aeroplane specified in paragraph (c) of article 4 of this Order, the standards applicable to a propeller driven aeroplane having a maximum total weight authorised of 9,000kg or less which in the opinion of the CAA–

(i) conforms to a prototype aeroplane being a prototype in respect of which the competent authority received an application for a certificate of airworthiness on or after 1st January 1988 and did not reject that application; or

(ii) conforms to a derived version of a prototype aeroplane being a derived version in respect of which the competent authority received an application to modify the certificate of airworthiness for the prototype on or after 1st January 1988 and did not reject that application,

shall be those specified in Part VI of the said Schedule 1.

Provided that if the competent authority receives an application for a certificate of airworthiness for such an aeroplane before 1st January 1993 and does not reject that

application and the aeroplane is unable to meet the standards specified in Part VI of the said Schedule 1, the standards specified in Part V of the said Schedule 1 shall apply.

(9) The standards applicable to an aeroplane capable of sustaining level flight at a speed in excess of Flight Mach 1.0 which in the opinion of the CAA–

(a) conforms to a prototype aeroplane being a prototype in respect of which the competent authority received an application for a certificate of airworthiness before 1st January 1975 and did not reject that application and in respect of which a certificate of airworthiness was first issued on or after 26th November 1981; or

(b) conforms to a derived version of a prototype aeroplane being a prototype in respect of which the competent authority received an application for a certificate of airworthiness before 1st January 1975 and did not reject that application and in respect of which the certificate of airworthiness for the individual aeroplane was first issued on or after 26th November 1981,

shall be that the noise made by the aeroplane shall be no louder than that made by the prototype when the noise level of the prototype is measured in accordance with paragraph 2 of Part I of the said Schedule 1 in the noise certification reference conditions set out in paragraphs 1 and 3(3) thereof.

(10) Subject to paragraph (11) of this article, the standards applicable to a helicopter which in the opinion of the CAA–

(a) conforms to a prototype helicopter, being a prototype in respect of which the competent authority received an application for a certificate of airworthiness on or after 1st August 1986 and did not reject that application; or

(b) conforms to a derived version of a helicopter, being a derived version in respect of which the competent authority received an application to modify the certificate of airworthiness for the prototype on or after 1st August 1986 and did not reject that application; or

(c) conforms to a derived version of a helicopter being a helicopter of an airworthiness standard equivalent to that which would have been required for the issue of a certificate of airworthiness for a prototype helicopter by the competent authority if the application had been made before 1st August 1986 and being a derived version in respect of which the competent authority received an application to modify such a helicopter on or after 1st August 1986 and did not reject that application,

shall be those specified in Part IX of the said Schedule 1.

(11) For the purposes of determining the standard applicable to an aircraft where the interval between–

(a) the application for a certificate of airworthiness for a prototype aircraft and the first issue of a certificate for an aircraft of that type; or

(b) the application to modify a certificate of airworthiness for a prototype and the first issue of a certificate for an aircraft of that type as modified,

exceeds 5 years, the date on which the application was made shall, unless the CAA in a particular case otherwise directs, be deemed to be 5 years before the date of the first issue of the certificate.

(12) The standards applicable to an aeroplane specified in paragraph (c) of article 4 of this Order shall be those–

(a) specified in Part VII of Schedule 1 to this Order for any such aeroplane which is registered in the United Kingdom before 1st April 1986; or

(b) specified in Part VIII of Schedule 1 to this Order for any other such aeroplane.

(13) The CAA shall, except in respect of an aeroplane specified in paragraph (c) of article 4 of this Order, issue every noise certificate subject to a condition as to the maximum total weights at which the aircraft may land or take-off and may issue such a certificate subject to such other conditions relating to standards as to noise as it thinks fit.

(14) Subject to paragraph (15) of this article and article 9 of this Order, a noise certificate issued under this article shall remain in force without limit of time.

(15) A noise certificate issued under this article in respect of an aircraft registered in the United Kingdom shall cease to be sufficient for the purposes of article 5 of this

Order–

(a) at such time as the aircraft or any part of it is modified, in any way which affects the ability of the aircraft to comply with the noise standards required by this Order, otherwise than in a manner and with material of a type approved by the CAA either generally or in relation to a class of aircraft or to a particular aircraft; and

(b) until the completion of any inspection or test of the aircraft required by the CAA to be made, which shows that the aircraft complies with the noise standards required by this Order.

(16) The CAA may, for the purposes of this article, accept reports furnished to it by a person whom it may approve, either absolutely or subject to such conditions as it thinks fit, as qualified to furnish such reports.

Noise certificate to be carried

7.—(1) An aircraft shall not land or take-off in the United Kingdom unless it carries any noise certificate which it is required to carry under the law of the country in which it is registered.

(2) An aircraft registered in the United Kingdom shall, when in flight, whether within the United Kingdom or elsewhere, carry any noise certificate which is required by this Order to be in force in respect of that aircraft:

Provided that if the flight is intended to begin and end at the same aerodrome, the certificate may be kept at that aerodrome instead of being carried in the aircraft.

Production of noise certificate

8. The commander of an aircraft shall, within a reasonable time after being requested to do so by the CAA or an authorised person, cause to be produced to the CAA or that person the noise certificate in force in respect of that aircraft.

Revocation, suspension and variation of noise certificates

9.—(1) The CAA may, if it thinks fit, provisionally suspend any noise certificate, approval, exemption or other document issued under this Order pending inquiry into or consideration of the case. The CAA may, after sufficient ground being shown to its satisfaction after due inquiry, revoke, suspend or vary any such certificate, approval, exemption or other document.

(2) The holder or any person having the possession or custody of any noise certificate, approval, exemption or other document which has been revoked, suspended or varied under this Order shall surrender it to the CAA within a reasonable time after being required to do so by it.

(3) The breach of any condition subject to which any noise certificate, approval, exemption or other document has been issued under this Order shall render the certificate invalid during the continuance of the breach.

Offences in relation to noise certificates

10.—(1) A person shall not with intent to deceive–

(a) use any noise certificate issued or required under this Order which has been revoked or suspended, or to which he is not entitled; or

(b) lend any such certificate to, or allow it to be used by, any other person; or

(c) make any false representation for the purpose of procuring for himself or any other person the issue, renewal or variation of any such certificate.

(2) A person shall not purport to issue any noise certificate under this Order unless he has been authorised to do so.

Power to prevent aircraft flying

11.—(1) If it appears to the CAA or an authorised person that any aircraft is intended or likely to be flown in such circumstances that article 5 of this Order would be contravened in relation to the flight, the CAA or that authorised person may direct the

operator or the commander of the aircraft that he is not to permit the aircraft to make the flight or any other flight of such description as may be specified in the direction, until the direction has been revoked by the CAA or by an authorised person, and, if the aircraft is in the United Kingdom, the CAA or that authorised person may take such steps as are necessary to detain the aircraft.

(2) If the operator or the commander of an aircraft fails without reasonable excuse to comply with a direction given to him pursuant to paragraph (1) of this article, he shall be guilty of an offence.

(3) For the purposes of paragraph (1) of this article, the CAA or any authorised person may enter upon and inspect any aircraft.

Right of access to aerodromes and other places

12. The CAA and any authorised person shall have for the purpose of ascertaining whether the provisions of this Order are being complied with, the right of access at all reasonable times–

(a) to any aerodrome in the United Kingdom for the purpose of inspecting any aircraft on the aerodrome or any document which it, or he, has power to demand under this Order, and for the purpose of detaining any aircraft under this Order; and

(b) to any place in the United Kingdom where an aircraft has landed, for the purpose of inspecting the aircraft or any document which it, or he, has power to demand under this Order and for the purpose of detaining the aircraft under this Order:

Provided that access to a Government aerodrome shall only be obtained with the permission of the person in charge of the aerodrome.

Obstruction of persons

13. A person shall not intentionally obstruct or impede any person acting in the exercise of his powers or the performance of his duties under this Order.

Penalties

14.—(1) If any provision of this Order is contravened in relation to an aircraft the operator of that aircraft and the commander thereof shall (without prejudice to the liability of any other person under this Order for that contravention) be deemed for the purposes of the following provisions of this article to have contravened that provision unless he proves that the contravention occurred without his consent or connivance and that he exercised all due diligence to prevent the contravention.

(2) If it is proved that an act or omission of any person which would otherwise have been a contravention by that person of a provision of this Order was due to any cause not avoidable by the exercise of reasonable care by that person, the act or omission shall be deemed not to be a contravention by that person of that provision.

(3) If any person contravenes any provisions of this Order, not being a provision referred to in paragraph (4) of this article, he shall be liable on summary conviction to a fine not exceeding level 3 on the standard scale.

(4) If any person contravenes article 5, 10, 11 or 13 of this Order he shall be liable on summary conviction to a fine not exceeding level 4 on the standard scale.

Application of Order to the Crown and visiting forces, etc.

15.—(1) Subject to the following provisions of this article, the provisions of this Order shall apply to, or in relation to, aircraft belonging to or exclusively employed in the service of Her Majesty, as they apply to or in relation to other aircraft and for the purposes of such application the Department or other authority for the time being responsible on behalf of Her Majesty for the management of the aircraft shall be deemed to be the operator of the aircraft:

Provided that nothing in this article shall render liable to any penalty any Department or other authority responsible on behalf of Her Majesty for the management of any aircraft.

(2) The naval, military and air force authorities and members of any visiting force and any international headquarters and the members thereof and property held or used for the purpose of such a force or headquarters shall be exempt from the provisions of this Order to the same extent as if that force or headquarters formed part of the forces of Her Majesty raised in the United Kingdom and for the time being serving there.

(3) Nothing in this Order shall apply to or in relation to any military aircraft.

Exemption

16. The CAA after consultation with the Secretary of State may exempt from any of the provisions of this Order or any Regulations made thereunder any aircraft or persons or classes of aircraft or persons, either absolutely or subject to such conditions as it thinks fit.

Extra-territorial effect of the Order

17.—(1) Except where the context otherwise requires, the provisions of this Order–

(a) insofar as they apply (whether by express reference or otherwise) to aircraft registered in the United Kingdom, shall apply to such aircraft wherever they may be;

(b) insofar as they apply as aforesaid to other aircraft shall apply to such aircraft when they are within the United Kingdom;

(c) insofar as they prohibit, require or regulate (whether by express reference or otherwise) the doing of anything by the commander of any aircraft registered in the United Kingdom, shall apply to him wherever he may be; and

(d) insofar as they prohibit, require or regulate as aforesaid the doing of anything in relation to any aircraft registered in the United Kingdom by other persons shall, where such persons are Commonwealth citizens, British protected persons or citizens of the Republic of Ireland, apply to them wherever they may be.

(2) Nothing in this article shall be construed as extending to make any person guilty of an offence in any case in which it is provided by section 3(1) of the British Nationality Act 1948(**a**) (which limits the criminal liability of citizens of certain countries) that that person shall not be guilty of an offence.

G. I. de Deney
Clerk of the Privy Council

(**a**) 1948 c.56.

SCHEDULE 1

Article 6

PART I

NOISE STANDARDS REQUIRED FOR ISSUE OF A NOISE CERTIFICATE TO AEROPLANES SPECIFIED IN ARTICLES 6(2), (6) AND (9)

1. In this Part of this Schedule–

"the noise certification reference conditions" means conditions in which–

(i) atmospheric pressure at sea level is 1013.25 millibars;

(ii) ambient air temperature is 25°C;

(iii) relative humidity is 70%;

(iv) there is zero wind; and

(v) the maximum take-off and landing weights of the aeroplane are those at which noise certification is requested by the applicant for the certificate.

2. The noise levels required by paragraph 3 of this Part of this Schedule shall be measured at the following points–

(a) on take-off, at a point on a line parallel to and 650 metres from the centre-line or extended centre-line of the runway where it appears to the CAA that the noise during take-off is greatest;

(b) on take-off, at a point on the extended centre-line of the runway, 6,500 metres from the start of the take-off roll; and

(c) on the approach to landing at a point on the extended centre-line of the runway, 120 metres vertically below the 3° descent path.

3.—(1) Subject to the provisions of paragraph 4 of this Part of this Schedule an aeroplane having the maximum total weight authorised specified in the 1st column of the following Table shall not, at the points referred to at (a), (b) and (c) of paragraph 2 of this Part of this Schedule, exceed in the noise certification reference conditions the noise levels specified in relation to those points in the 2nd, 3rd and 4th columns of that Table, as shown by flying trials.

TABLE

Maximum total weight authorised of aeroplane	*Noise level in EPNdB*		
	At point (a)	*At point (b)*	*At point (c)*
272,000 kg or more	108	108	108
34,000 kg or less	102	93	102

(2) Where the maximum total weight authorised of the aeroplane is between the weights specified in the above Table, the noise levels which are not to be exceeded shall vary linearly according to the logarithm of the maximum total weight authorised of the aeroplane.

(3) The necessary corrections shall be made where the flying trials are carried out in conditions other than the noise certification reference conditions.

4. The noise levels specified in paragraph 3 of this Part of this Schedule may be exceeded at one or two of the measuring points specified in paragraph 2 if–

(a) the sum of the excesses does not exceed 4 EPNdB;

(b) at no measuring point is the excess greater than 3 EPNdB; and

(c) the excesses are completely offset by reductions at the other measuring points.

PART II

NOISE STANDARDS REQUIRED FOR ISSUE OF A NOISE CERTIFICATE TO AEROPLANES SPECIFIED IN ARTICLES 6(3) AND (7)

1. In this Part of this Schedule–

"the noise certification reference conditions" means conditions in which–

(i) atmospheric pressure at sea level is 1013.25 millibars;

(ii) ambient air temperature is 25°C;

(iii) relative humidity is 70%;

(iv) there is zero wind; and

(v) the maximum take-off and landing weights of the aeroplane are those at which noise certification is requested by the applicant for the certificate.

2. The noise levels required by paragraph 3 of this Part of this Schedule shall be measured at the following points–

(a) on take-off, at a point on a line parallel to and 450 metres from the centre-line or extended centre-line of the runway where it appears to the CAA that the noise during take-off is greatest;

(b) on take-off, at a point on the extended centre-line of the runway, 6,500 metres from the start of the take-off roll; and

(c) on the approach to landing, at a point on the extended centre-line of the runway, 120 metres vertically below the 3° descent path.

3.—(1) Subject to the provisions of paragraph 4 of this Part of this Schedule an aeroplane having the maximum total weight authorised specified in the 1st column of the following Table shall not, at the points referred to at (a), (b) and (c) of paragraph 2 of this Part of this Schedule, exceed in the noise certification reference conditions the noise levels in relation to those points in the 2nd column, the 3rd, 4th and 5th columns (whichever is applicable having regard to the number of engines installed in the aeroplane) and in the 6th column of that Table, as shown by flying trials.

TABLE

Maximum total weight authorised of aeroplane	*Noise level in EPNdB*				
	At point (a)	*At point (b)*			*At point (c)*
		2 engines	*3 engines*	*4 engines*	
400,000 kg or more	103				
385,000 kg or more		101	104	106	
280,000 kg or more					105
48,125 kg or less		89			
35,000 kg or less	94				98
28,615 kg or less			89		
20,234 kg or less				89	

(2) Where the maximum total weight authorised of the aeroplane is between the weights specified in the above Table, the noise levels which are not to be exceeded shall vary linearly according to the logarithm of the maximum total weight authorised of the aeroplane.

(3) The necessary corrections shall be made where flying trials are carried out in conditions other than the noise certification reference conditions.

4. The noise levels specified in paragraph 3 of this Part of this Schedule may be exceeded at one or two of the measuring points specified in paragraph 2 if–

(a) the sum of the excesses does not exceed 3 EPNdB;

(b) at no measuring point is the excess greater than 2 EPNdB; and

(c) any excesses are completely offset by reductions at the other measuring point or points.

PART III

NOISE STANDARDS REQUIRED FOR ISSUE OF A NOISE CERTIFICATE TO AEROPLANES SPECIFIED IN ARTICLE 6(4)

1. In this Part of this Schedule–

"the noise certification reference conditions" means conditions in which–

(i) atmospheric pressure at sea level is 1013.25 millibars;

(ii) ambient air temperature is 25°C;

(iii) relative humidity is 70%;

(iv) there is zero wind; and

(v) the maximum take-off and landing weights of the aeroplane are those at which noise certification is requested by the applicant for the certificate.

2. The noise levels required by paragraph 3 of this Part of this Schedule shall be measured at the following points–

(a) on take-off, at a point on a line parallel to and 650 metres from the centre-line or extended centre-line of the runway where it appears to the CAA that the noise during take-off is greatest;

(b) on take-off, at a point on the extended centre-line of the runway, 6,500 metres from the start of the take-off roll; and

(c) on the approach to landing, at a point on the extended centre-line of the runway, 120 metres vertically below the 3° descent path.

3.—(1) Subject to the provisions of paragraph 4 of this Part of this Schedule an aeroplane having the maximum total weight authorised specified in the 1st column of the following Table shall not, at the points referred to at (a), (b) and (c) of paragraph 2 of this Part of this Schedule, exceed in the noise certification reference conditions the noise levels specified in relation to those points in the 2nd column, the 3rd, 4th or 5th columns (whichever is applicable having regard to the number of engines installed in the aeroplane) and in the 6th column of that Table, as shown by flying trials.

TABLE

Maximum total weight authorised of aeroplane	*Noise level in EPNdB*				
	At point (a)	*At point (b)*			*At point (c)*
		2 engines	*3 engines*	*4 engines*	
400,000 kg or more	106				
325,000 kg or more		104	107	108	
280,000 kg or more					108
133,447 kg				102.09	
66,724 kg			97.9		
48,312 kg or less		93			
35,000 kg or less	97				101
34,000 kg or less			93	93	

(2) Where the maximum total weight authorised of the aeroplane is between the weights specified in the above Table, the noise levels which are not to be exceeded shall vary linearly according to the logarithm of the maximum total weight authorised of the aeroplane.

(3) The necessary corrections shall be made where flying trials are carried out in conditions other than the noise certification reference conditions.

4. The noise levels specified in paragraph 3 of this Part of this Schedule may be exceeded at one or two of the measuring points specified in paragraph 2 if–

(a) the sum of the excesses does not exceed 4 EPNdB;

(b) at no measuring point is the excess greater than 3 EPNdB; and

(c) any excesses are completely offset by reductions at the other measuring point or points.

PART IV

NOISE STANDARDS REQUIRED FOR ISSUE OF A NOISE CERTIFICATE TO AEROPLANES SPECIFIED IN ARTICLE 6(5)

1. In this Part of this Schedule–

"the noise certification reference conditions" means conditions in which–

(i) atmospheric pressure at sea level is 1013.25 millibars;

(ii) ambient air temperature is 25°C;

(iii) relative humidity is 70%;

(iv) there is zero wind; and

(v) the maximum take-off and landing weights of the aeroplane are those at which noise certification is requested by the applicant for the certificate.

2. The noise levels required by paragraph 3 of this Part of this Schedule shall be measured at the following points–

(a) on take-off, at a point on a line parallel to and 450 metres from the centre-line or extended centre-line of the runway where it appears to the CAA that the noise during take-off is greatest;

(b) on take-off, at a point on the extended centre-line of the runway, 6,500 metres from the start of the take-off roll; and

(c) on the approach to landing, at a point on the extended centre-line of the runway, 120 metres vertically below the 3° descent path.

3.—(1) Subject to the provisions of paragraph 4 of this Part of this Schedule an aeroplane having the maximum total weight authorised specified in the 1st column of the following Table shall not, at the points referred to at (a), (b) and (c) of paragraph 2 of this Part of this Schedule, exceed in the noise certification reference conditions the noise levels specified in relation to those points in the 2nd, 3rd and 4th columns of that Table, as shown by flying trials.

TABLE

Maximum total weight authorised of aeroplane	*Noise level in EPNdB*		
	At point (a)	*At point (b)*	*At point (c)*
384,666 kg or more	103		105
358,906 kg or more	|	106	|
34,000 kg or less	96	89	98

(2) Where the maximum total weight authorised of the aeroplane is between the weights specified in the above Table, the noise levels which are not to be exceeded shall vary linearly according to the logarithm of the maximum total weight authorised of the aeroplane.

(3) The necessary corrections shall be made where the flying trials are carried out in conditions other than the noise certification reference conditions.

4. The noise levels specified in paragraph 3 of this Part of this Schedule may be exceeded at one or two of the measuring points specified in paragraph 2 if–

(a) the sum of the excesses does not exceed 3 EPNdB;

(b) at no measuring point is the excess greater than 2 EPNdB; and

(c) any excesses are completely offset by reductions at the other measuring point or points.

PART V

NOISE STANDARDS REQUIRED FOR ISSUE OF A NOISE CERTIFICATE TO AEROPLANES SPECIFIED IN ARTICLE 6(8)(a)

1. In this Part of this Schedule–

"the noise certification reference conditions" means conditions in which–

(i) atmospheric pressure at sea level is 1013.25 millibars;

(ii) ambient air temperature is 25°C; and

(iii) the maximum take-off weights of the aeroplane are those at which noise certification is requested by the applicant for the certificate.

2. The noise levels required by paragraph 3 of this Part of this Schedule shall be measured in a level fly-over, at a point 300 metres vertically below the aeroplane.

3.—(1) An aeroplane having the maximum total weight authorised specified in the 1st column of the following Table shall not, at the point referred to in paragraph 2 of this Part of this Schedule, exceed in the noise certification reference conditions the noise level specified in the 2nd column of that Table, as shown by flying trials.

TABLE

Maximum total weight authorised of aeroplane	*Peak noise level in dB(A) at measurement point*
1500 kg or more	80
600 kg or less	68

(2) Where the maximum total weight authorised of the aeroplane is between the weights specified in the above Table, the noise level which is not to be exceeded shall vary linearly according to the maximum total weight authorised of the aeroplane.

(3) The necessary corrections shall be made where flying trials are carried out in conditions other than the noise certification reference conditions.

PART VI

NOISE STANDARDS REQUIRED FOR ISSUE OF A NOISE CERTIFICATE TO AEROPLANES SPECIFIED IN ARTICLE 6(8)(b)

1. In this Part of this Schedule–

"the noise certification reference conditions" means conditions in which–

(i) atmospheric pressure at sea level is 1013.25 millibars;

(ii) ambient air temperature is 15°C;

(iii) relative humidity is 70%;

(iv) there is zero wind; and

(v) the maximum take-off and landing weights of the aeroplane are those at which noise certification is requested by the applicant for the certificate.

2. The noise levels required by paragraph 3 of this Part of this Schedule shall be measured at the point of the extended centre-line of the runway 2,500 metres from the start of the take-off roll.

3.—(1) An aeroplane having the maximum total weight authorised specified in the 1st column of the following Table shall not, at the point referred to in paragraph 2 of this Part of this Schedule, exceed in the noise certification reference conditions the noise level specified in the 2nd column of that Table, as shown by flying trials.

TABLE

Maximum total weight authorised of aeroplane	*Peak noise level in dB(A) at measurement point*
1400 kg or more	88
600 kg or less	76

(2) Where the maximum total weight authorised of the aeroplane is between the weights specified in the above Table, the noise levels which are not to be exceeded shall vary linearly according to the logarithm of the maximum total weight authorised of the aeroplane.

(3) The necessary corrections shall be made where flying trials are carried out in conditions other than the noise certification reference conditions.

PART VII

NOISE STANDARDS REQUIRED FOR ISSUE OF A NOISE CERTIFICATE TO AEROPLANES SPECIFIED IN ARTICLE 6(12)(a)

1. In this Part of this Schedule–

"the noise certification reference conditions" means conditions in which–

(i) atmospheric pressure at sea level is 1013.25 millibars;

(ii) ambient air temperature is 25°C; and

(iii) in respect of an aeroplane with two seats, a passenger shall be carried for the flying trials.

2. The noise level required by paragraph 3 of this Part of this Schedule shall be measured in a level fly-over, at a point 150 metres vertically below the aeroplane.

3.—(1) An aeroplane specified in the 1st column of the following Table shall not, at the point referred to in paragraph 2 of this Part of this Schedule, exceed in the noise certification reference conditions the noise level specified in the 2nd column of that Table, as shown by flying trials.

TABLE

Number of Seats	*Noise level in LAX at measurement point*
1	80
2	84

(2) The necessary corrections shall be made where flying trials are carried out in conditions other than the noise certification reference conditions.

PART VIII

NOISE STANDARDS REQUIRED FOR ISSUE OF A NOISE CERTIFICATE TO AEROPLANES SPECIFIED IN ARTICLE 6(12)(b)

1. In this Part of this Schedule–

"the noise certification reference conditions" means conditions in which–

(i) atmospheric pressure at sea level is 1013.25 millibars;

(ii) ambient air temperature is 25°C;

(iii) the flying trials shall be carried out in a level fly-over; and

(iv) in respect of an aeroplane with two seats, a passenger shall be carried for the flying trials.

2. The noise level required by paragraph 3 of this Part of this Schedule shall be measured at a point 150 metres vertically below the aeroplane.

3.—(1) An aeroplane specified in the 1st column of the following Table shall not, at the point referred to in paragraph 2 of this Part of this Schedule, exceed in the noise certification reference conditions the noise level specified in the 2nd column of that Table, as shown by flying trials.

TABLE

Number of Seats	*Noise level in LAX at measurement point*
1	76
2	80

(2) The necessary corrections shall be made where flying trials are carried out in conditions other than the noise certification reference conditions.

PART IX

NOISE STANDARDS REQUIRED FOR ISSUE OF A NOISE CERTIFICATE TO HELICOPTERS SPECIFIED IN ARTICLE 6(10)

1. In this Part of this Schedule–

"the noise certification reference conditions" means conditions in which–

(i) atmospheric pressure at sea level is 1013.25 millibars;

(ii) ambient air temperature is 25°C;

(iii) relative humidity is 70%;

(iv) there is zero wind; and

(v) the maximum take-off and landing weights of the helicopter are those at which noise certification is requested by the applicant for the certificate.

"Take-off reference procedure" means the procedure specified in BCAR;

"Overflight reference procedure" means the procedure specified in BCAR;

"Approach reference procedure" means the procedure specified in BCAR.

2. The noise levels required by paragraph 3 of this Part of this Schedule shall be measured at the following points–

(a) on take-off–

(i) at a flight path reference point located on the ground vertically below the flight path defined in the take-off reference procedure and 500 metres horizontally in the direction of flight from the point at which transition to climbing flight is initiated in the reference procedure;

(ii) at two other points on the ground symmetrically disposed about the flight path defined in the take-off reference procedure and lying on a horizontal line through the flight path reference point at right angles to the direction of flight at a distance of 150 metres.

(b) on overflight–

(i) at a flight path reference point located on the ground 150 metres vertically below the flight path defined in the overflight reference procedure;

(ii) at two other points on the ground symmetrically disposed about the flight path defined in the approach reference procedure and lying on a horizontal line through the flight path reference point at right angles to the direction of flight at a distance of 150 metres.

(c) on approach–

(i) at a flight path reference point located on the ground 120 metres vertically below the flight path defined in the approach reference procedure;

(ii) at two other points on the ground symmetrically disposed about the flight path defined in the approach reference procedure and lying on a horizontal line through the flight path reference point at right angles to the direction of flight at a distance of 150 metres.

3.—(1) Subject to the provisions of paragraph 4 of this Part of this Schedule a helicopter having the maximum total weight authorised specified in the 1st column of the following Table shall not, at the points referred to at (a), (b) and (c) of paragraph 2 of this Part of this Schedule, exceed in the noise certification reference conditions the noise levels specified in relation to those points in the 2nd, 3rd and 4th columns of that Table, as shown by flying trials.

TABLE

Maximum total weight authorised of helicopter	*Noise level in EPNdB*		
	At point (a)	*At point (b)*	*At point (c)*
80,000 kg or more	109	108	110
788 kg or less	89	88	90

(2) Where the maximum total weight authorised of the helicopter is between the weights specified in the above Table, the noise levels which are not to be exceeded shall vary linearly according to the logarithm of the maximum total weight authorised of the helicopter.

(3) The necessary corrections shall be made where flying trials are carried out in conditions other than the noise certification reference conditions.

4. The noise levels specified in paragraph 3 of this Part of this Schedule may be exceeded at one or two of the measuring points specified in paragraph 2 if–

(a) the sum of the excesses does not exceed 4 EPNdB;

(b) at no measuring point is the excess greater than 3 EPNdB; and

(c) any excesses are completely offset by reductions at the other measuring point or points.

SCHEDULE 2 Article 3

"An International Standard Atmosphere at sea level" means an atmosphere having the following characteristics–

(a) the air is a perfect dry gas;

(b) the physical constants are–

(i) sea level mean molecular weight:
$M_o = 28.9644$

(ii) sea level atmospheric pressure:
$P_o = 1013.250$ millibars
$= 1.013250 \times 10^5$ newtons m^{-2}

(iii) sea level temperature:
$t_o = 15°C$
$T_o = 288.15°K$

(iv) sea level atmospheric density:
$P_o = 1.2250$ kg m^{-3}

(v) temperature of the ice point:
$Ti = 273.15°K$

(vi) universal gas constant:
$R = 8.31432$ joules $(°K)^{-1}$ mol^{-1}

EXPLANATORY NOTE

(This note is not part of the Order)

This Order revokes and replaces the Air Navigation (Noise Certification) Order 1987. In addition to some minor and drafting amendments the following change is made:–

A subsonic aeroplane registered in the United Kingdom after 1st November 1990 and powered by turbojet or turbofan engines which either has a maximum total weight authorised of more than 34,000kg or is capable of seating more than 19 passengers is prohibited from taking off or landing in the United Kingdom or in any other Member State of the European Community unless there is in force in respect of that aeroplane a noise certificate issued by the CAA certifying that the aeroplane complies with the applicable standards specified in article 6(3) of the Order (article 5(2)).

The publication British Civil Airworthiness Requirements Section N – Noise Issue 5 and the Convention on International Civil Aviation referred to in article 3 can be purchased from the Civil Aviation Authority, Greville House, 37 Gratton Road, Cheltenham, Glos GL50 2BN.

£2.70 net

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