STATUTORY INSTRUMENTS

1984 No. 368

CIVIL AVIATION

The Air Navigation (Noise Certification) Order 1984

Laid before Parliament in draft

Made - - - -	14*th March* 1984
Coming into Operation	1*st April* 1984

At the Court at Buckingham Palace, the 14th day of March 1984

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, 61, 101 and 102 of the Civil Aviation Act 1982 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 1984 and shall come into operation on 1st April 1984.

Revocation

2. The Air Navigation (Noise Certification) Order 1979 (**b**) 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;

"The Authority" means the Civil Aviation Authority;

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

(**a**) 1982 c.16. (**b**) S.I. 1979/930.

"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;

"dB(A)" means the unit for expressing A-weighted overall sound pressure level determined in accordance with the British Civil Airworthiness Requirements Section N — Noise Issue 2 dated 10th November 1978 as amended by the CAA Blue Paper N810 dated 12th January 1984 with any modifications which may be prescribed;

"EPNdB" means the unit for expressing effective perceived noise level determined in accordance with British Civil Aviation Airworthiness Requirements Section N — Noise Issue 2 dated 10th November 1978 as amended by the CAA Blue Paper N810 dated 12th January 1984 with any modifications which may be prescribed;

"LAX" means the A-weighted noise energy of a single aircraft noise event determined in accordance with the British Civil Airworthiness Requirements Section N — Noise Issue 2 dated 10th November 1978 as amended by the CAA Blue Paper N810 dated 12th January 1984 with any modifications which may be prescribed;

"The Convention" means the Convention on International Civil Aviation signed on behalf of the United Kingdom at Chicago on 7th December 1944;

"Noise certificate" means a certificate issued 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 1980 (**a**).

(3) A power to make regulations under this Order shall include the power to make different provisions with respect to different classes of aeroplane 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 5,700 kg 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(8) of this Order;

(c) every aeroplane having an empty weight not exceeding 150 kg, a wing area of not less than 10 square metres and a wing loading not exceeding 10 kg per square metre at empty weight and which is designed to carry not more than two persons;

(**a**) S.I. 1980/1965, amended by S.I. 1982/161 and 1983/1905.

(d) every other 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.

Requirement of noise certificate

5. An aeroplane to which this Order applies shall not land or take-off in the United Kingdom unless—

(a) (i) in respect of an aeroplane specified in paragraphs *(a)*, *(b)* and *(d)* of Article 4 of this Order there is in force in respect of that aeroplane a noise certificate—

(aa) issued by the Authority under Article 6 of this Order; or

(bb) issued by the competent authority of the country in which the aeroplane 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 Authority; or

(cc) issued in pursuance of the Convention by the competent authority of the State in which the aeroplane 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 Authority under Article 6 of this Order; or

(bb) issued 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 Authority are substantially equivalent to those required for the issue of a noise certificate by the Authority, and

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

Provided that the foregoing prohibition shall not apply to an aeroplane 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 Authority shall issue a noise certificate in respect of any aeroplane to which this Order applies if it is satisfied that the aeroplane complies with the applicable standards specified in this Article in relation to the noise made by the aeroplane, and for that purpose the applicant for a certificate shall furnish such evidence and submit the aeroplane to such flying trials and other tests as the Authority may require.

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

(3) Subject to paragraph (9) of this Article, the standards applicable to an aeroplane having turbojet or turbofan engines which, in the opinion of the Authority—

(a) conforms to a prototype aeroplane in respect of which the authorities

of the State of manufacture 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 modification of such a prototype aeroplane, being a modification in respect of which the authorities of the State of manufacture 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 (9) of this Article, the standards applicable to an aeroplane having turbofan engines which, in the opinion of the Authority, conforms to a modification of a prototype aeroplane (being a prototype in respect of which the authorities of the State of manufacture received an application for a certificate of airworthiness before 6th October 1977 and did not reject that application and being a modification in respect of which the authorities of the State of manufacture 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 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 5,700 kg (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) Subject to paragraph (9) of this Article, the standards applicable to a propeller driven aeroplane having a maximum total weight authorised of more than 5,700 kg (not being an aeroplane of a description referred to in paragraph (7) of this Article) which in the opinion of the Authority—

(a) conforms to a prototype aeroplane being a prototype in respect of which the authorities of the State of manufacture 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 aeroplane was first issued on or after 26th November 1981; or

(b) conforms to a modification of a prototype aeroplane being a prototype in respect of which the authorities of the State of manufacture 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 (9) 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 5,700 kg or less and to a propeller driven aeroplane having a maximum total weight authorised of 6,500 kg or less, being in the opinion of the Authority a modification of a prototype aeroplane having a maximum total weight authorised of 5,700 kg or less, shall be those specified in Part V of the said Schedule 1.

(8) Subject to paragraph (9) of this Article 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 Authority—

(a) conforms to a prototype aeroplane being a prototype in respect of which the authorities of the State of manufacture 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 modification of a prototype aeroplane being a prototype in respect of which the authorities of the State of manufacture 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 paragraph 1 thereof.

(9) Except in respect of an aeroplane specified in paragraph *(c)* of Article 4 of this Order, for purposes of determining the standard applicable to an aeroplane where the interval between—

(a) the application for a certificate of airworthiness for a prototype aeroplane and the first issue of a certificate for an aeroplane 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 aeroplane of that type as modified,

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

(10) The standards applicable to an aeroplane specified in paragraph *(c)* of Article 4 of this Order shall be those—

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

(11) The Authority 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 aeroplane may take-off and land and may issue such a certificate subject to such other conditions relating to standards as to noise as it thinks fit.

(12) Subject to paragraph (13) of this Article and Article 9 of this Order, a noise certificate issued under this Article shall remain in force without limit of time.

(13) A noise certificate issued under this Article in respect of an aeroplane registered in the United Kingdom shall cease to be sufficient for the purposes of Article 5 of this Order:—

(a) if the aeroplane or any part of it is modified, in any way which affects the ability of the aeroplane to comply with the noise standards required by this Order, otherwise than in a manner and with the material of a

type approved by the Authority either generally or in relation to a class of aeroplane or to a particular aeroplane;

(b) until the completion of any inspection or test of the aeroplane required by the Authority to be made for the purpose of ascertaining whether the aeroplane continues to comply with the noise standards required by this Order.

(14) The Authority 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 aeroplane 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 aeroplane 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 aeroplane:

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 aeroplane.

Production of noise certificate

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

Revocation, suspension and variation of noise certificates

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

11.—(1) If it appears to the Authority or an authorised person that any aeroplane 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 Authority or that authorised person may direct the operator or the commander of the aeroplane that he is not to permit the aeroplane 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 Authority or by an authorised person, and the Authority or that authorised person may take such steps as are necessary to detain the aeroplane.

(2) If the operator or the commander of an aeroplane 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 Authority or any authorised person may enter upon and inspect any aeroplane.

Right of access to aerodromes and other places

12. The Authority 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 for the purpose of inspecting any aeroplane on the aerodrome or any document which it, or he, has power to demand under this Order, and for the purpose of detaining any aeroplane under this Order; and

(b) to any place where an aeroplane has landed, for the purpose of inspecting the aeroplane or any document which it, or he, has power to demand under this Order and for the purpose of detaining the aeroplane 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 aeroplane the operator of that aeroplane 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 £200.

(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 £400.

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, aeroplanes belonging to or exclusively employed in the service of Her Majesty, as they apply to or in relation to other aeroplanes 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 aeroplane shall be deemed to be the operator of the aeroplane.

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 aeroplane.

(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 aeroplane.

Exemption

16. The Authority after consultation with the Secretary of State may exempt from any of the provisions of this Order or any regulations made thereunder any aeroplane or persons or classes of aeroplanes 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 aeroplanes registered in the United Kingdom, shall apply to such aeroplanes wherever they may be;

(b) insofar as they apply as aforesaid to other aeroplanes shall apply to such aeroplanes 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 aeroplane 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 aeroplane registered in the United Kingdom by other persons shall, where such persons are British subjects 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 certain persons who are not citizens of the United Kingdom and colonies) that that person shall not be guilty of an offence.

N. E. Leigh,
Clerk of the Privy Council.

SCHEDULE 1

Article 6

PART I

Noise standards required for issue of a noise certificate to aeroplanes specified in Articles 6(2), (6) and (8)

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 extended centre-line of the runway where it appears to the Authority 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 run; 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 first 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.

(a) 1948 c.56.

(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 excess 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 Article 6(3)

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 Authority 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 run; 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 first 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, 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 Authority 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 run; 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 first 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, 4th or 5th columns (whichever is applicable having regard to the number of engines installed in the aeroplane) and 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				102.9	
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 Authority 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 run; 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 first 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 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(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; and

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

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 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(10)(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 VII

Noise standards required for issue of a noise certificate to aeroplanes specified in Article 6(10)(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; 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	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.

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:
$M_0 = 28.9644$

(ii) sea level atmospheric pressure:
$P_0 = 1013.250$ millibars
$= 1.013250 \times 10^5$ newtons m^{-2}

(iii) sea level temperature:
$t_0 = 15°C$
$T_0 = 288.15$ °K

(iv) sea level atmospheric density:
$\bar{\rho}_0 = 1.2250$ kg m^{-3}

(v) temperature of the ice point:
$T_i = 273.15$°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 1979. In addition to some minor and drafting amendments the following changes are made:—

(1) Noise certification requirements have been extended to supersonic aeroplanes which first obtained a certificate of airworthiness on or after 26th November 1981 and which either conform to a prototype in respect of which a certificate of airworthiness was applied for before 1st January 1975 or conform to a modification of such a prototype aeroplane (Articles 4*(b)* and 6(8)).

(2) The application of the standards specified in Part III of Schedule 1 has now been extended to subsonic jet aeroplanes having turbofan engines with a by-pass ratio of less than two which conform to a modification of a prototype aeroplane, if the application for a certificate of airworthiness in respect of the prototype was made before 6th October 1977 and the application to modify the certificate of airworthiness in respect of the prototype was made on or after 26th November 1981 (Article 6(4)).

(3) The application of the standards specified in Part I of Schedule 1 has now been extended to propeller driven aeroplanes of more than 5,700 kg which first obtained a certificate of airworthiness on or after 26th November 1981 and conform either to a prototype in respect of which an application for a certificate of airworthiness was made before 6th October 1977 or conform to a modification of such a prototype aeroplane (Article 6(6)).

(4) The application of the standards specified in Part V of Schedule 1 has been extended to propeller driven aeroplanes having a maximum total weight authorised of 6,500 kg or less which are derived versions of a prototype aeroplane having a maximum total weight authorised of 5,700 kg or less (Article 6(7)).

(5) Noise certification requirements have been extended to microlight aeroplanes. A higher standard applies to microlight aeroplanes registered on or after 1st April 1986 than to those registered before that date (Articles 4*(c)* and 6(10)).

The publications British Civil Airworthiness Requirements Section N — Noise Issue 2 and CAA Blue Paper N810 referred to in Article 3 can be purchased from the Civil Aviation Authority, Greville House, 37 Gratton Road, Cheltenham, Glos. GL50 2BN.

SI 1984/368
ISBN 0-11-046368-4

