

SCHEDULE 5

Article 20(2)

RADIO COMMUNICATION AND RADIO NAVIGATION
EQUIPMENT TO BE CARRIED IN AIRCRAFT

1. Subject to paragraph 3, every aircraft shall be provided, when flying in the circumstances specified in the first column of the Table in paragraph 2 of this Schedule, with the scales of equipment respectively indicated in the second column of that Table; provided that, if the aircraft is flying in a combination of such circumstances the scales of equipment shall not on that account be required to be duplicated.

2. Table

<i>Aircraft Scale of Equipment Required and Circumstances of Flight</i>	A	B	C	D	E	F	G	H	J
(1) All aircraft (other than gliders) within the United Kingdom—									
when (a) flying under Instrument Flight Rules within controlled airspace					E1	F			
when (b) flying within controlled airspace									
when (c) making an approach to landing at an aerodrome							G		

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*Aircraft Scale of Equipment Required
and
Circumstances
of
Flight*

	notified for the purpose of this sub- paragraph	
When	(d) flying for the purpose of public transport	E1
(2)All aircraft within the United Kingdom—		
When	A (a) flying at or above flight level 245	
When	A (b) flying within airspace notified for the purposes of this sub paragraph	
(3)All aircraft (other		

*Aircraft Scale of Equipment Required
and
Circumstances
of
Flight*

than
gliders)
within
the
United
Kingdom—

when (a) flying at or above flight level 245	E1	F
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when (b) flying within airspace notified for the purposes of this sub- paragraph	E1	
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when (c) flying at or above flight level 100	E1	
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When
flying
under
Instrument
Flight
Rules
within
airspace
notified
for the
purposes

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*Aircraft Scale of Equipment Required
and
Circumstances
of
Flight*

of this
paragraph—

- | | | |
|-----|--|----|
| (a) | (a) | E2 |
| | aeroplanes
having
a
maximum
take-
off
weight
authorised
not
exceeding
5,700
kg
and
a
maximum
cruising
true
airspeed
capability
not
exceeding
250
knots | |
| (b) | (b) | E2 |
| | rotorcraft | |
| (c) | (c) | E3 |
| | aeroplanes
having
either
a
maximum
take-
off
weight
authorised
of
more
than
5,700
kg
or
a
maximum | |

*Aircraft Scale of Equipment Required
and
Circumstances
of
Flight*

	cruising true airspeed capability of more than 250 knots			
(d)	(d) aircraft required to carry Scale E2 or E3		EE	
(5)	All aircraft registered in the United Kingdom, wherever they may be—			
(a)	(a) flying for the purpose of public transport under Instrument Flight Rules—			
(i)	while making an approach	C	D	H

*Aircraft Scale of Equipment Required
and
Circumstances
of
Flight*

(1) ~~(v)~~erA (i) B
a
route
on
which
navigation
is
effected
solely
by
visual
reference
to
landmarks

(ii) ~~(n)~~A (ii)
all
other
occasions

(3) ~~(n)~~A (e)
flying
under
Instrument
Flight
Rules
within
controlled
airspace
and
not
required
to
comply
with
(5) paragraph
(a)
above

(6) All
aeroplanes
registered
in the
United
Kingdom,
wherever
they
may be,
and all

J

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*Aircraft Scale of Equipment Required
and
Circumstances
of
Flight*

aeroplanes
wherever
registered
when
flying in
the
United
Kingdom,
powered
by one
or more
turbine
jets or
turbine
propeller
engines
and
either
having a
maximum
take-off
weight
exceeding
15,000
kg or
with a
maximum
approved
passenger
seating
configuration
of more
than 30

(7)All
aeroplanes
powered
by one
or more
turbine
jets or
turbine
propeller
engines
and
either
having a
maximum

*Aircraft Scale of Equipment Required
and
Circumstances
of
Flight*

take-off
weight
exceeding
5,700
kg or a
maximum
approved
passenger
seating
configuration
of more
than 19;
and—

registered (a)

J

in
the
United
Kingdom
and
flying
for
the
purpose
of
public
transport;
or

registered (b)

J

in
the
United
Kingdom
and
flying
within
the
airspace
of
the
member
states
of
the
European
Civil
Aviation

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<i>Aircraft Scale of Equipment Required and Circumstances of Flight</i>	
Conference; or flying (c) in the United Kingdom	J

3.—(1) In the case of sub-paragraphs (1), (2), (3), (4)(a), (4)(c) and (5)(e) of paragraph 2, the specified equipment need not be carried if the appropriate air traffic control unit otherwise permits in relation to the particular flight and the aircraft complies with any instructions which the air traffic control unit may give in the particular case.

(2) An aircraft which is not a public transport aircraft and which is flying in Class D or Class E airspace shall not be required to be provided with distance measuring equipment in accordance with paragraph (b) of Scale F when flying in the circumstances specified in sub-paragraph (1)(a) of paragraph 2.

4. The scales of radio communication and radio navigation equipment indicated in the foregoing Table shall be as follows—

Scale A

Radio communication equipment capable of maintaining direct two-way communication with the appropriate aeronautical radio stations.

Scale B

Radio navigation equipment capable of enabling the aircraft to be navigated on the intended route including such equipment as may be prescribed.

Scale C

Radio communication equipment capable of receiving from the appropriate aeronautical radio stations meteorological broadcasts relevant to the intended flight.

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 E1

Secondary surveillance radar equipment which includes a pressure altitude reporting transponder capable of operating in Mode A and Mode C 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 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 shall, in the circumstances specified in paragraph 2.1.5.3 of Volume IV (Third Edition July 2002) 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) automatic direction finding equipment;
- (b) distance measuring equipment;
- (c) duplicated VHF omni-range equipment; and
- (d) 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 19(9).

(3) Where not more than 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

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- (c) the commander of the aircraft has satisfied himself that, 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, the flight can be made safely and in accordance with any relevant requirements of the appropriate air traffic control unit.

Scale J

An airborne collision avoidance system.

5. In this Schedule—

(1) “Airborne collision avoidance system” means an aeroplane system which conforms to requirements prescribed for the purpose; is based on secondary surveillance radar transponder signals; operates independently of ground based equipment and which 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;

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

(3) “Distance measuring equipment” means radio equipment capable of providing a continuous indication of the aircraft’s distance from the appropriate aeronautical radio stations;

(4) “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 4 digit identity code;

(5) “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;

(6) “Secondary surveillance radar equipment” means such type of radio equipment as may be notified as being capable of—

- (a) replying to an interrogation from secondary surveillance radar units on the surface; and
- (b) being operated in accordance with such instructions as may be given to the aircraft by the appropriate air traffic control unit;

(7) “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.