Public Authority for Civil Aviation

DETERMINATION OF AERODROME OPERATING MINIMA (AOM)
GUIDANCE MATERIAL
GM – CAR-173

Manual No: 1.3.9.

Issue Date: 01 October 2018

Revision Number: 01

Controlled Copy

List of Effective Pages

Page No.	Rev No.	Date of Issue	Page No.	Rev No.	Date of Issue
1	01	01/08/18	41		
2	01	01/08/18	42		
3	01	01/08/18	43		
4	01	01/08/18	44		
5	01	01/08/18	45		
6	01	01/08/18	46		
7	01	01/08/18	47		
8	01	01/08/18	48		
9	01	01/08/18	49		
10	01	01/08/18	50		
11	01	01/08/18	51		
12	01	01/08/18	52		
13	01	01/08/18	53		
14	01	01/08/18	54		
15	01	01/08/18	55		
16	01	01/08/18	56		
17	01	01/08/18	57		
18	01	01/08/18	58		
19	01	01/08/18	59		
20	01	01/08/18	60		
21			61		
22			62		
23			63		
24			64		
25			65		
26			66		
27			67		
28			68		
29			69		
30			70		
31			71		
32			72		
33			73		
34			74		
35			75		
36			76		
37			77		
38			78		
39			79		
40			80		

INTENTIONALL LEFT BLANK

TABLE OF CONTENTS

FOREWORD

This Guidance Material provides guidance to CAR-173:

(a) ANSD in the oversight of their service providers in the calculation and promulgation of operating minima;
(b) Organizations responsible for instrument flight procedure (IFP) development to aid them in determination of AOM in a manner consistent with the provisions of CAR-OPS 1 and CAR-173;
(c) Aerodrome operators and ANSP to understand how aerodrome operating minima are determined as well as to highlight the need for the provision of ground facilities and services when planning to implement all-weather operations; and
(d) Flight crew-members and other personnel who need to understand the AOM methods of calculation.

The AOM are published on instrument approach charts. They constitute the lowest operating minima that can be used without an operational approval by the aircraft operator's surveillance authority.

The aerodrome operating minima are published as MDH/DH and RVR/Visibility for the following approach procedures:

- Category II precision approaches with DH greater than or equal to 100 ft;
- Category I precision approaches with DH greater than or equal to 200 ft;
- Approaches with vertical guidance (APV);
- Non precision approaches; and
- Visual manoeuvres.

It is the responsibility of IPDSP to establish Aerodrome Operating Minima to be published in the Oman AIP for each instrument approach procedure and circling procedure developed at aerodromes as per CAR-173.

This Guidance Material is effective from 01 October 2018.

CHAPTER 1 - GENERAL CONCEPTS

1.1 INTRODUCTION

(1) Aerodrome Operating Minima are established in order to ensure the desired level of safety in Aeroplane Operations at an Aerodrome by limiting these operations in specified weather conditions. The values of aerodrome operating minima for a particular operation must ensure that at all times the combination of information available from external sources and the aeroplane instruments and equipment is sufficient to enable the aeroplane to be operated along the desired flight path.

(2) This CAP lays down the methods used in the calculation of aerodrome operating minima Aerodrome operating Minima for Omani aerodromes.

(3) The authority determines and publishes aerodrome operating minima as MDH/DH and RVR/Visibility for the following approach procedures:

- Category II precision approaches with DH greater than or equal to 100 ft;
- Category I precision approaches with DH greater than or equal to 200 ft;
- Approaches with vertical guidance (APV);
- Non precision approaches; and
- Visual manoeuvres.

(4) The minima are published on the instrument approach charts. They constitute the lowest operating minima that can be used without an operational approval by the aircraft operator's surveillance authority.

(5) It is the responsibility of IPDSP to establish Aerodrome Operating Minima to be published in the Oman AIP for each instrument approach procedure and circling procedure developed at aerodromes as per CAR-173.

1.2 DEFINITIONS

When the following terms are used in this Guidance Material (GM) they have the following meanings:

(1) ***Aerodrome operating minima.*** The limits of usability of an aerodrome for:

(a) take-off, expressed in terms of runway visual range and/or visibility and, if necessary, cloud conditions;

(b) landing in precision approach and landing operations, expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H) as appropriate to the category of the operation;

(c) landing in approach and landing operations with vertical guidance, expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H); and

(d) landing in non-precision approach and landing operations, expressed in terms of visibility and/or runway visual range, minimum descent altitude/height (MDA/H) and, if necessary, cloud conditions.

(2) ***Approach and landing operations using instrument approach procedures.*** Instrument approach and landing operations are classified as follows:

(a) ***Non-precision approach and landing operations***. An instrument approach and landing which utilizes lateral guidance but does not utilize vertical guidance.

(b) ***Approach and landing operations with vertical guidance.*** An instrument approach and landing which utilizes lateral and vertical guidance but does not meet the requirements established for precision approach and landing operations.

(c) ***Precision approach and landing operations*****.** An instrument approach and landing using precision lateral and vertical guidance with minima as determined by the category of operation.

Note: Lateral and vertical guidance refers to the guidance provided either by:

(a) a ground-based navigation aid; or

(b) computer generated navigation data.

(3) ***Categories of precision approach and landing operations:***

(a) ***Category I (CAT I) operation.*** A precision instrument approach and landing with:

i. a decision height not lower than 60 m (200 ft); and

ii. with either a visibility not less than 800 m or a runway visual range not less than 550 m.

(b) ***Category II (CAT II) operation.*** A precision instrument approach and landing with:

i. a decision height lower than 60 m (200 ft), but not lower than 30 m (100 ft); and

ii. a runway visual range not less than 300 m.

(c) ***Category IIIA (CAT IIIA) operation.*** A precision instrument approach and landing with:

i. a decision height lower than 30 m (100 ft) or no decision height; and

ii. a runway visual range not less than 175 m.

(d) ***Category IIIB (CAT IIIB) operation.*** A precision instrument approach and landing with:

i. a decision height lower than 15 m (50 ft), or no decision height; and

ii. a runway visual range less than 175 m but not less than 50 m.

(e) ***Category IIIC (CAT IIIC) operation.*** A precision instrument approach and landing with no decision height and no runway visual range limitations.

Note: Where decision height (DH) and runway visual range (RVR) fall into different categories of operation, the instrument approach and landing operation would be conducted in accordance with the requirements of the most demanding category (e.g. an operation with a DH in the range of CAT IIIA but with an RVR in the range of CAT IIIB would be considered a CAT IIIB operation or an operation with a DH in the range of CAT II but with an RVR in the range of CAT I would be considered a CAT II operation).

(4) ***Categories of aeroplanes.*** The following five categories of aeroplanes have been established based on 1.3 times the stall speed in the landing configuration at maximum certificated landing mass:

(a) Category A — less than 169 km/h (91 kt) IAS
(b) Category B — 169 km/h (91 kt) or more but less than 224 km/h (121 kt) IAS
(c) Category C — 224 km/h (121 kt) or more but less than 261 km/h (141 kt) IAS
(d) Category D — 261 km/h (141 kt) or more but less than 307 km/h (166 kt) IAS
(e) Category E — 307 km/h (166 kt) or more but less than 391 km/h (211 kt) IAS.

(5) ***Circling approach.*** An extension of an instrument approach procedure which provides for visual circling of the aerodrome prior to landing.

(6) ***Continuous descent final approach (CDFA).*** A technique, consistent with stabilized approach procedures, for flying the final approach segment of a non-precision instrument approach procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height to a point approximately 15 m (50 ft) above the landing runway threshold or the point where the flare manoeuvre should begin for the type of aircraft flown.

(7) ***Converted meteorological visibility (CMV).*** A value (equivalent to an RVR) which is derived from the reported meteorological visibility.

(8) ***Decision altitude (DA)*** or ***decision height (DH).*** A specified altitude or height in the precision approach or approach with vertical guidance at which a missed approach must be initiated if the required visual reference to continue the approach has not been established.

Note 1: Decision altitude (DA) is referenced to mean sea level and decision height (DH) is referenced to the threshold elevation.

Note 2: The required visual reference means that section of the visual aids or of the approach area, which should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In Category III operations with a decision height the required visual reference is that specified for the particular procedure and operation.

*Note 3: For convenience where both expressions are used they may be written in the form "decision altitude/*height*" and abbreviated "DA/H".*

(8) ***Final approach.*** That part of an instrument approach procedure which commences at the specified final approach fix or point, or where such a fix or point is not specified,

(a) at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or
(b) at the point of interception of the last track specified in the approach procedure; and
(c) ends at a point in the vicinity of an aerodrome from which:

i. a landing can be made; or
ii. a missed approach procedure is initiated.

(9) ***Final approach segment.*** That segment of an instrument approach procedure in which alignment and descent for landing are accomplished.

(10) ***Instrument approach procedure.*** A series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en-route obstacle clearance criteria apply. Instrument approach procedures are classified as follows:

(a) ***Non-precision approach (NPA) procedure***. An instrument approach procedure which utilizes lateral guidance but does not utilize vertical guidance.

(b) ***Approach procedure with vertical guidance (APV)*****.** An instrument approach procedure which utilizes lateral and vertical guidance but does not meet the requirements established for precision approach and landing operations.

(c) ***Precision approach (PA) procedure*****.** An instrument approach procedure using precision lateral and vertical guidance with minima as determined by the category of operation.

Note: Lateral and vertical guidance refers to the guidance provided either by:
(a) a ground-based navigation aid; or
(b) computer-generated navigation data.

(11) ***Minimum descent altitude (MDA)*** **or** ***minimum descent height (MDH).*** A specified altitude or height in a non-precision approach or circling approach below which descent must not be made without the required visual reference.

Note 1: Minimum descent altitude (MDA) is referenced to mean sea level and minimum descent height (MDH) is referenced to the aerodrome elevation or to the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. A minimum descent height for a circling approach is referenced to the aerodrome elevation.

Note 2: The required visual reference means that section of the visual aids or of the approach area which should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In the case of a circling approach the required visual reference is the runway environment.

Note 3: For convenience when both expressions are used they may be written in the form "minimum descent altitude/height" and abbreviated "MDA/H".

(12) ***Obstacle clearance altitude (OCA)*** **or** ***obstacle clearance height (OCH).*** The lowest altitude or the lowest height above the elevation of the relevant runway threshold or the aerodrome elevation as applicable, used in establishing compliance with appropriate obstacle clearance criteria.

Note 1: Obstacle clearance altitude is referenced to mean sea level and obstacle clearance height is referenced to the threshold elevation or in the case of non-precision approaches to the aerodrome elevation or the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An obstacle clearance height for a circling approach is referenced to the aerodrome elevation.

Note 2: For convenience when both expressions are used they may be written in the form "obstacle clearance altitude/ height" and abbreviated "OCA/H".

(13) ***Runway visual range (RVR).*** The range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.

(14) ***Vertical navigation (VNAV).*** A method of navigation which permits aircraft operation on a vertical flight profile using altimetry sources, external flight path references, or a combination of these.

(15) ***Visibility.*** Visibility for aeronautical purposes is the greater of:

(a) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognized when observed against a bright background;

(b) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background.

Note 1: The two distances have different values in air of a given extinction coefficient, and the latter b) varies with the background illumination. The former a) is represented by the meteorological optical range (MOR).

Note. 2: The definition applies to the observations of visibility in local routine and special reports, to the observations of prevailing and minimum visibility reported in METAR and SPECI and to the observations of ground visibility.

1.3 ABBREVIATIONS/ACRONYMS

AIP	Aeronautical information publication
AIS	Aeronautical information service
ANSD	Air Navigation Safety Department
AOM	Aerodrome operating minima
APV	Approach procedure with vertical guidance
BALS	Basic approach lighting system
CAA	Civil Aviation Authority
CAR	Civil Aviation Regulations
CAT I	Category I
CAT II	Category II
CAT III	Category III
CDFA	Continuous descent final approach
CFIT	Controlled flight into terrain
CMV	Converted meteorological visibility
DA	Decision altitude
DA/H	Decision altitude/height
DGCAR	Director General for Civil Aviation Regulation
DH	Decision height
DME	Distance measuring equipment
FAF	Final approach fix
FALS	Full approach lighting system
HATh	Height above threshold
HIALS	High intensity approach lighting system
IALS	Intermediate approach lighting system
IAS	Indicated airspeed
IFR	Instrument flight rules
ILS	Instrument landing system
IMC	Instrument meteorological conditions
IPDSP	Instrument Procedure Design Service Provider
LOC	Localizer
LNAV	Lateral navigation
MDA	Minimum descent altitude
MDA/H	Minimum descent altitude/height
MDH	Minimum descent height
MIALS	Medium intensity approach and lighting system
MOC	Minimum obstacle clearance
NALS	No approach lighting system
NDB	Non-directional beacon
OCA	Obstacle clearance altitude
OCA/H	Obstacle clearance altitude/height
OCH	Obstacle clearance height
PACA	Public Authority for Civil Aviation
PANS	Procedures for Air Navigation Services
PANS-OPS	Procedures for Air Navigation Services Aircraft Operations
PAR	Precision approach radar

RCLL	Runway centre line lights
RNAV	Area navigation
RNP	Required navigation performance
RTZL	Runway touchdown zone lights
RVR	Runway visual range
SRA	Surveillance radar approach
TDZ	Touchdown zone
THR	Threshold
VDF	Very high frequency direction-finding station
VFR	Visual flight rules
VIS	Visibility
VMC	Visual meteorological conditions
VNAV	Vertical navigation
VOR	Very high frequency omnidirectional radio range
VSS	**Visual segment surface**

CHAPTER 2. DETERMINATION OF AERODROME OPERATING MINIMA

2.1 Factors affecting operational minima

In general, minima are developed by adding the effect of a number of operational factors to OCA/H to produce, in the case of precision approaches, decision altitude (DA) or decision height (DH), in the case of non-precision approaches, minimum descent altitude (MDA) or minimum descent height (MDH). The general operational factors to be considered are specified in Annex 6.

As per CAR–OPS 1.430 Aerodrome Operating Minima, It's the responsibility of the airline operator to establish, for each aerodrome planned to be used, aerodrome operating minima that are not lower than any that may be established for such aerodromes by the State in which the aerodrome is located, except when specifically approved by that State.

It is the responsibility of IPDSP to establish Aerodrome Operating Minima to be published in the Oman AIP for each instrument approach procedure and circling procedure developed at aerodromes as per the provision of this CAP.

2.2 The minimum values of DH or MDH

2.2.1 Precision approach — Category II

The decision height for Category II approach shall be the higher of:

- The OCH for the category of aeroplane; or
- 100 ft.

2.2.2 Precision approach — Category I

The decision height for Category I approach shall be the higher of:

- The OCH for the category of aeroplane; or
- 200 ft.

2.2.3 APV approach

The decision height for APV approach shall be the higher of:

- The OCH for the category of aeroplane; or
- 250 ft.

2.2.4 A non-precision approach (NPA)

The MDH for an NPA approach shall be the higher of:

- the OCH for the category of aeroplane; or
- the system minimum in table annexed hereto as Appendix 1.

2.2.5 Circling

(a) The MDH for circling shall be the higher of:
- the OCH for the aeroplane category; or
- the minimum circling height derived from Table in appendix 4; or
- the DH/MDH of the preceding instrument approach procedure.

(b) Minimum descent altitude (MDA). The MDA for circling shall be calculated by adding the published aerodrome elevation to the MDH, as determined by a) above.

(c) Published DA, DH, MDA, MDH must be expressed in feet rounded to the next higher 10-foot increment.

2.3 Approach Lighting Systems.

(a) Visual aids are designed to increase the conspicuousness of the runway, provide visual references in the final stages of the approach and landing and expedite surface movement. The importance of visual aids increases as visibility becomes limited. Approach lighting, runway centre line lighting, runway edge lighting and runway markings provide a reference for the pilot to assess lateral position and cross-track velocity. The approach lighting and threshold lighting and markings provide a roll reference. Touchdown zone (TDZ) lighting and markings indicate the plane of the runway surface and show the touchdown area providing vertical and longitudinal references.

(b) The length and shape of the approach lights play an essential role in the determination of the landing minima. Shorter approach lighting systems require greater RVR. Therefore, the length of the approach lights is directly correlated with the RVR. Approach lighting systems are described in Annex 14, Volume I. Examples of approach lighting system configurations are described in Table 2-1 below.

Table 2-1. Approach lighting systems

Class of facility	Length, configuration and intensity of approach lights
FALS (full approach lighting system)	Precision approach CAT I lighting system (HIALS ≥ 720 m) Distance coded centre line, barrette centre line
IALS (intermediate approach lighting system)	Simple approach lighting system (HIALS 420 m to 719 m) Single source, barrette
BALS (basic approach lighting system)	Any other approach lighting system (HIALS, MIALS or ALS 210 m to 419 m)
NALS (no approach lighting system)	Any other approach lighting system (HIALS, MIALS or ALS < 210 m) or no approach lights

(c) Detailed description of the Approach lighting systems for each airport is contained in AIP Oman section AD 2.14 Approach and runway lighting.

2.4 Determination of RVR/ Visibility minima

2.4.1 RVR for cat II

The lowest minima for Category II operations are:

RVR for Cat II operations v. DH

Decision height (ft)	RVR (m)(1)	
	Aeroplane Category A, B & C	Aeroplane Category D
100–120	300m	300(2)/350
121–140	400	400
141 and above	450	450

Note 1: The values in the table represent the absolute minimum RVR under the most favourable operating conditions.

Note 2: If autoland operations supported by the airport facilities, RVR for cat D can be reduced to 300m.

2.4.2 RVR for CAT I, APV and NPA

(a) RVR greater or equal to 750 m

The determination of the RVR values is based on the joint use of the two annexed tables in Appendixes 2 and 3.

As a first step, for each aeroplane category, the table in Appendix 2 shall be use for obtaining an initial value of RVR. There are three possible scenarios :

- If the value obtained is situated between MNM and MAX as determined by table in appendix 3, this value is selected and to be published;
- If the value obtained is less than the MNM value as determined by table in appendix 3, in such a case, the MNM value of the table is selected and to be published;
- If the value obtained is greater than the MAX value as determined by table in appendix 3, in such a case, the MAX value of the table is selected and to be published;

(b) RVR Lower than 750 m

An RVR of less than 750 m as indicated in appendix 2 may be used for Category I approach operations to runways with FALS (see below), Runway Touchdown Zone Lights (RTZL) and Runway Centerline Lights (RCLL) provided that the DH is not more than 200 ft.

(c) Use of Appendix 3 for minimum and maximum values of RVR

In order to qualify for the lowest allowable values of RVR/CMV detailed in appendix 3 (applicable to each approach grouping) the instrument approach shall meet at least the following facility requirements and associated conditions:

(1) Instrument approaches with designated vertical profile up to and including 4.5° for Category A and B aeroplanes, or 3.77° for Category C and D aeroplanes, unless other approach angles are approved by the Authority, where the facilities are:
   i. ILS/MLS/GLS/PAR; or
   ii. APV; and
   iii. where the final approach track is offset by not more than 15° for Category A and B aeroplanes or by not more than 5° for Category C and D aeroplanes.

(2) Instrument approaches flown using the CDFA technique with a nominal vertical profile, up to and including 4.5° for Category A and B aeroplanes, or 3.77° for Category C and D aeroplanes, unless other approach angles are approved by the Authority where the facilities are NDB, NDB/DME, VOR, VOR/DME, LLZ, LLZ/DME, VDF, SRA or RNAV/LNAV, with a final-approach segment of at least 3NM, which also fulfil the following criteria:
   i. The final approach track is offset by not more than 15° for Category A and B aeroplanes or by not more than 5° for Category C and D aeroplanes; and
   ii. The FAF or another appropriate fix where descent is initiated is available, or distance to THR is available by RNAV or DME; and
   iii. If the MAPt is determined by timing, the distance from FAF to THR is ≤ 8 NM.

(3) Instrument approaches where the facilities are NDB, NDB/DME, VOR, VOR/DME, LLZ, LLZ/DME, VDF, SRA or RNAV/LNAV, not fulfilling the criteria in paragraph (c)(2) above, or with an MDH ≥ 1 200 ft.

2.4.3 Visibility for circling

The minimum visibility for circling shall be the higher of:

- the minimum visibility derived from Table in appendix 4; or
- the RVR for the preceding instrument approach procedure.

2.4 Publication

The IPDSP is requested to provide with the IFP Package a draft chart of the instrument approach procedure (IAC). Doing so requires to :

- Provide minimums for each approach category accommodated at the airport ;
- Annotate the chart appropriately when one or more approach categories are not authorized. Publish minima for each approach category except those not authorized (e.g. publish only category A and B straight-in minimums when categories C and D are not authorized or publish only straight-in minimums when circling is not authorized at the aerodrome).

APPENDIX 1. System Minima v. Facilities

Facility	Lowest DH/MDH
Localiser with or without DME	250 ft
SRA (terminating at 1/2 NM)	250 ft
SRA (terminating at 1 NM)	300 ft
SRA (terminating at 2 NM or more)	350 ft
RNAV/LNAV	300 ft
VOR	300 ft
VOR/DME	250 ft
NDB	350 ft
NDB/DME	300 ft
VDF	350 ft

APPENDIX 2. RVR/CMV v. DH/MDH

DH or MDH			Class of Lighting Facility			
			FALS	IALS	BALS	NALS
			See paragraphs 2.4.2 (b) about RVR < 750 m			
feet			metres			
200	—	210	550	750	1 000	1 200
211	—	220	550	800	1 000	1 200
221	—	230	550	800	1 000	1 200
231	—	240	550	800	1 000	1 200
241	—	250	550	800	1 000	1 300
251	—	260	600	800	1 100	1 300
261	—	280	600	900	1 100	1 300
281	—	300	650	900	1 200	1 400
301	—	320	700	1 000	1 200	1 400
321	—	340	800	1 100	1 300	1 500
341	—	360	900	1 200	1 400	1 600
361	—	380	1 000	1 300	1 500	1 700
381	—	400	1 100	1 400	1 600	1 800
401	—	420	1 200	1 500	1 700	1 900
421	—	440	1 300	1 600	1 800	2 000
441	—	460	1 400	1 700	1 900	2 100
461	—	480	1 500	1 800	2 000	2 200
481	—	500	1 500	1 800	2 100	2 300
501	—	520	1 600	1 900	2 100	2 400
521	—	540	1 700	2 000	2 200	2 400
541	—	560	1 800	2 100	2 300	2 500
561	—	580	1 900	2 200	2 400	2 600
581	—	600	2 000	2 300	2 500	2 700
601	—	620	2 100	2 400	2 600	2 800
621	—	640	2 200	2 500	2 700	2 900
641	—	660	2 300	2 600	2 800	3 000
661	—	680	2 400	2 700	2 900	3 100
681	—	700	2 500	2 800	3 000	3 200
701	—	720	2 600	2 900	3 100	3 300
721	—	740	2 700	3 000	3 200	3 400
741	—	760	2 700	3 000	3 300	3 500
761	—	800	2 900	3 200	3 400	3 600
801	—	850	3 100	3 400	3 600	3 800
851	—	900	3 300	3 600	3 800	4 000
901	—	950	3 600	3 900	4 100	4 300
951	—	1000	3 800	4 100	4 300	4 500
1001	—	1100	4 100	4 400	4 600	4 900
1101	—	1200	4 600	4 900	5 000	5 000
1 201 and above			5 000	5 000	5 000	5 000

APPENDIX 3. Minimum and maximum applicable RVR for all instrument approaches down to CAT I minima (lower and upper cut-off limits)

Facility/conditions	RVR/CMV (m)	Aeroplane category			
		A	B	C	D
ILS, MLS, GLS, PAR and APV	Min	According to Table in appendix 2			
	Max	1 500	1 500	2 400	2 400
NDB, NDB/DME, VOR, VOR/DME, LLZ, LLZ/DME, VDF, SRA, RNAV/LNAV with a procedure which fulfils the criteria in paragraph 2.4.2 (c)(ii):	Min	750	750	750	750
	Max	1 500	1 500	2 400	2 400
For NDB, NDB/DME, VOR, VOR/DME, LLZ, LLZ/DME, VDF, SRA, RNAV/LNAV: — not fulfilling the criteria in paragraph 2.4.2 (c).(ii) , or — with a DH or MDH ≥ 1 200 ft	Min	1 000	1 000	1 200	1 200
	Max	According to appendix 2 if flown using the CDFA technique, otherwise an add-on of 200/400 m applies to the values in appendix 2 but not to result in a value exceeding 5 000 m.			

APPENDIX 4. Minimum Visibility and MDH for Circling v. Aeroplane Category

	Aeroplane Category			
	A	**B**	**C**	**D**
MDH (ft)	400	500	600	700
Minimum meteorological visibility (m)	1 500	1 600	2 400	3 600