Annex III to ED Decision 2023/007/R

'AMC & GM to Annex IV (Part-CAT) to Commission Regulation (EU) No 965/2012 — Issue 2, Amendment 23'

The text of the amendment is arranged to show deleted, new or amended text as shown below:

(a) deleted text is ~~struck through~~;

(b) new or amended text is highlighted in blue;

(c) an ellipsis '[…]' indicates that the rest of the text is unchanged.

Note to the reader

In amended, and in particular in existing (that is, unchanged) text, 'Agency' is used interchangeably with 'EASA'. The interchangeable use of these two terms is more apparent in the consolidated versions. Therefore, please note that both terms refer to the 'European Union Aviation Safety Agency (EASA)'.

The Annex to Decision 2014/015/R of 24 April 2014 of the Executive Director of the Agency is amended as follows:

AMC1 CAT.OP.MPA.105 Use of aerodromes and operating sites

[…]

(e) Operations to non-pre-surveyed sites by night (except in accordance with SPA.HEMS.125(~~b~~c)(4)) should not be permitted.

AMC5 CAT.OP.MPA.110 Aerodrome operating minima

DETERMINATION OF RVR OR VIS FOR INSTRUMENT APPROACH OPERATIONS — AEROPLANES

[…]

Table 9

RVR versus DH/MDH — aeroplanes

DH or MDH (ft)			Class of lighting facility			
			FALS	IALS	BALS	NALS
			RVR (m)			
200	-	210	550	750	1 000	1 200
211	-	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	2 400
561	-	580	1 900	2 200	2 400	2 400
581	-	600	2 000	2 300	2 400	2 400
601	-	620	2 100	2 400	2 400	2 400
621	-	640	2 200	2 400	2 400	2 400
641	-	660	2 300	2 400	2 400	2 400
661	and above		2 400	2 400	2 400	2 400

Table 10

Visual and non-visual aids and/or on-board equipment versus minimum RVR — aeroplanes

Type of approach	Facilities	Lowest RVR	
		Multi-pilot operations	**Single-pilot operations**
3D operations Final approach track offset ≤15° for category A and B aeroplanes or ≤5° for Category C and D aeroplanes	runway touchdown zone lights (RTZL) and runway centre line lights (RCLL)	No limitation	
	without RTZL and/or RCLL but using HUDLS or equivalent system; without RTZL and/or RCLL but using autopilot or flight director to the DH	No limitation	600 m
	No RTZL and/or RCLL, not using HUDLS or equivalent system or autopilot or flight director to the DH	750 m	800 m
3D operations	runway touchdown zone lights (RTZL) and runway centre line lights (RCLL) and Final approach track offset > 15° for Category A and B aeroplanes or Final approach track offset > 5° for Category C and D aeroplanes	800 m	1 000 m
	without RTZL and RCLL but using HUDLS or equivalent system; autopilot or flight director to the DH and Final approach track offset > 15° for Category A and B aeroplanes or Final approach track offset > 5° for Category C and D aeroplanes	800 m	1 000 m
2D operations	Final approach track offset ≤15° for category A and B aeroplanes or ≤5° for Category C and D aeroplanes	750 m	800 m
	Final approach track offset > 15° for Category A and B aeroplanes	1 000 m	1 000 m
	Final approach track offset > 5° for Category C and D aeroplanes	1 200 m	1 200 m

[...]

AMC11 CAT.OP.MPA.110 Aerodrome operating minima

EFFECT ON LANDING MINIMA OF TEMPORARILY FAILED OR DOWNGRADED GROUND EQUIPMENT

(a) General

These instructions are intended for use both before and during flight. Only those facilities mentioned in Table 17 should be acceptable to be used to determine the effect of temporarily failed of downgraded equipment. It is, however, not expected that the commander would consult such instructions after passing 1 000 ft above the aerodrome. If failures of ground aids are announced at such a late stage, the approach could be continued at the commander's discretion. If failures are announced before such a late stage in the approach, their effect on the approach should be considered as described in Table 17, and the approach may have to be abandoned.

[…]

Table 17 **Failed or downgraded equipment — effect on landing minima**

Operations without LVO approval

<table>
<tr><th rowspan="2">Failed or downgraded equipment</th><th colspan="2">Effect on landing minima</th></tr>
<tr><th>Type B</th><th>Type A</th></tr>
<tr><td>Navaid stand-by transmitter</td><td colspan="2">No effect</td></tr>
<tr><td rowspan="4">Outer marker ~~(ILS only)~~</td><td rowspan="4">FOR CAT I: Not allowed except if the required height versus glide path can be checked using other means, e.g. DME fix</td><td>APV — not applicable</td></tr>
<tr><td>NPA with final approach fix (FAF): no effect unless used as FAF</td></tr>
<tr><td>If the FAF cannot be identified (e.g. no method available for timing of descent), NPA cannot be conducted</td></tr>
<tr><td>FOR CAT I: Not allowed except if the required height versus glide path can be checked using other means, e.g. DME fix</td></tr>
<tr><td>Middle marker (ILS only)</td><td>No effect</td><td>No effect unless used as MAPt</td></tr>
<tr><td>DME</td><td colspan="2">No effect
if replaced by RNAV (GNSS) information or the outer marker</td></tr>
<tr><td>RVR assessment systems</td><td colspan="2">No effect</td></tr>
<tr><td>Approach lights</td><td colspan="2">Minima as for NALS</td></tr>
</table>

Failed or downgraded equipment	Effect on landing minima	
	Type B	Type A
Approach lights except the last 210 m	Minima as for BALS	
Approach lights except the last 420 m	Minima as for IALS	
Standby power for approach lights	No effect	
Edge lights, threshold lights and runway end lights	Day: no effect; Night: not allowed	
Centre line lights	Aeroplanes: No effect if flight director (F/D), HUDLS or autoland; otherwise RVR 750 m Helicopters: No effect on CAT I and HELI SA CAT I approach operations	No effect but the minimum RVR should be 750m.
Centre line lights spacing increased to 30 m	No effect	
TDZ lights	Aeroplanes: No effect if F/D, HUDLS or autoland; otherwise RVR 750 m Helicopters: No effect	No effect
Taxiway lighting system	No effect	

GM8 CAT.OP.MPA.110 Aerodrome operating minima

LOW TEMPERATURE CORRECTION

[...]

(d) Guidance on accurate corrections for specific conditions (if required) is available in PANS-OPS, Volume III (ICAO Doc 8168) Section ~~1~~2 Chapter 4 First Edition, 2018.

AMC2 CAT.OP.MPA.182 Fuel/energy scheme — aerodrome selection policy — aeroplanes

BASIC FUEL SCHEME — DESTINATION ALTERNATE AERODROME

[...]

BASIC FUEL SCHEME WITH VARIATIONS — NO DESTINATION ALTERNATE AERODROME

(c) The operator may operate with no destination alternate aerodrome when the destination aerodrome is an isolated aerodrome or when the following two conditions are met:

[…]

(2) two separate runways are usable at the destination aerodrome and the appropriate weather reports and/or weather forecasts indicate that for the period from 1 hour before to 1 hour after the expected time of arrival, the ceiling is at least 2 000 ft (600 m) or the circling height + 500 ft (150 m), whichever is greater, and ground visibility is at least 5 km.

AMC8 CAT.OP.MPA.182 Fuel/energy scheme — aerodrome selection policy — aeroplanes

BASIC FUEL SCHEME WITH VARIATIONS — PLANNING MINIMA

[…]

Table 3 — Basic fuel scheme with variations — planning minima — aeroplanes

Destination alternate aerodrome, fuel ERA aerodrome

Row	**Type of approach operation**	**Aerodrome ceiling (cloud base or vertical visibility)**	**RVR/VIS**
1	Type B instrument approach operations	DA/H + 200 ft	RVR/VIS + 550 m
2	3D Type A instrument approach operations, based on a facility with a system minimum of 200 ft or less	DA/H* + 200 ft	RVR/VIS** + 800 m
3	Two or more usable type A instrument approach operations***, each based on a separate navigation aid	DA/H or MDA/H* + 200 ft	RVR/VIS** + 1 000 m
4	Other type A instrument approach operations	DA/H or MDA/H + 400 ft	RVR/VIS + 1 500 m
5	Circling approach operations	MDA/H + 400 ft	VIS + 1 500 m
Crosswind planning minima: see Table 1 of AMC3 CAT.OP.MPA.182			
Wind limitations should be applied taking into account the runway condition (dry, wet, contaminated).			

* The higher of the usable DA/H or MDA/H.

** The higher of the usable RVR or VIS.

*** Compliance with point CAT.OP.MPA.182(f) should be ensured.

[…]

AMC9 CAT.OP.MPA.182 Fuel/energy scheme — aerodrome selection policy — aeroplanes

BASIC FUEL SCHEME WITH VARIATIONS — PLANNING MINIMA

[…]

Table 4 — Basic fuel scheme with variations — planning minima

Destination alternate aerodrome, fuel ERA aerodrome, isolated destination aerodrome

Row	Type of approach	Aerodrome ceiling (cloud base or vertical VIS)	RVR/VIS
1	Two or more usable type B instrument approach operations to two separate runways***	DA/H* + 100 ft	RVR** + 300 m
2	One usable type B instrument approach operation	DA/H + 150 ft	RVR + 450 m
3	3D Type A instrument approach operations, based on a facility with a system minimum of 200 ft or less	DA/H + 200 ft	RVR/VIS** + 800 m
4	Two or more usable type A instrument approach operations ***, each based on a separate navigation aid	DA/H or MDA/H* + 200 ft	RVR/VIS** + 1 000 m
5	One usable type A instrument approach operation	DA/H or MDA/H + 400 ft	RVR/VIS + 1 500 m
6	Circling approach operations	MDA/H + 400 ft	VIS + 1 500 m
Crosswind planning minima: see Table 1 of AMC3 CAT.OP.MPA.182			
Wind limitations should be applied taking into account the runway condition (dry, wet, contaminated).			

* The higher of the usable DA/H or MDA/H.

** The higher of the usable RVR or VIS.

*** Compliance with point CAT.OP.MPA.182(f) should be ensured.

[…]

GM1 CAT.OP.MPA.185 Fuel/energy scheme — in-flight fuel/energy management policy — aeroplanes

BASIC FUEL SCHEME

RELEVANT FUEL DATA TO BE RECORDED

[…]

(b) […]

When an aircraft communications addressing and reporting system (ACARS) is available, the ~~operator~~ pilot does not need to be the one recording this data.

[…]

(i) Example 3: The aircraft reaches FL 350, which is the cruising flight level on its 5-hour flight. The weather forecast information that was obtained before departure was favourable and, therefore, the commander did not order any discretionary fuel. The destination alternate fuel is sufficient for 25-minute flight time and the destination alternate aerodrome is located beyond the destination aerodrome. For some reason (unexpected severe turbulence, cockpit window crack, etc.), the aircraft has to descend and continue the flight at FL 230, where fuel consumption is higher. In-flight fuel checks and fuel management now show that the destination aerodrome can still be reached but only if in-flight re-planning is done without the destination alternate aerodrome (the destination aerodrome has two runways and good weather, and it is less than ~~6~~4-hour flight time away, thus meeting the conditions for not requiring an alternate aerodrome). By doing so, the aircraft will arrive at destination for a straight-in approach with exactly the FRF plus 15-minute flight time. During the next 3,5 hours, an ERA aerodrome is available, and the situation is under control. When approaching the destination, the aircraft has to commit to land at the destination aerodrome as there is no other destination alternate aerodrome within 15 minutes of reaching the destination aerodrome. The ATC now informs the pilots that there is a change of landing runway resulting in a 12-minute trip fuel increase. It is time to declare 'MINIMUM FUEL'.

[…]

AMC1 CAT.OP.MPA.192(d) Selection of aerodromes and operating sites — helicopters

[…]

(b) The operator may demonstrate robustness against the loss of capability of the GNSS if all of the following criteria are met:

(1) At flight planning stage, SBAS or GBAS are expected to be available and used.

[…]

GM1 CAT.OP.MPA.305 Commencement and continuation of approach

[…]

(e) Where additional RVR information is provided (e.g. midpoint and stop end), this is advisory; such information may be useful to the pilot in order to determine whether there will be sufficient visual reference to control the aircraft during roll-out and taxi. For operations where the aircraft is

controlled manually during roll-out, Table 1 (aeroplanes) in AMC1 SPA.LVO.100(a) and Table 3 (helicopters) in AMC2 SPA.LVO.100(a) provide~~s~~ an indication of the RVR (e.g. midpoint and stop end) that may be required to allow manual lateral control of the aircraft on the runway.

AMC2 CAT.OP.MPA.312(a)(3) EFVS 200 operations

RECURRENT TRAINING AND CHECKING FOR EFVS 200 OPERATIONS

(a) The operator should ensure that the pilots are~~'~~ competent~~ce~~ to perform EFVS 200 operations. To do so, pilots should be trained every 6 months by performing at least two approaches on each type of aircraft operated.

[…]

AMC2 CAT.POL.A.235 Landing — wet and contaminated runways

FACTORING OF LANDING DISTANCE PERFORMANCE DATA WHEN ~~A~~ USING A HEAD-UP DISPLAY (HUD) OR AN EQUIVALENT DISPLAY WITH FLARE CUE

[…]

AMC1 CAT.POL.H.215(a)(1);(a)(2) En-route – critical engine inoperative

RELEVANT TERRAIN AND OBSTACLES IN IFR

All terrain and obstacles along the route within the following distance on either side of the intended track should be considered:

(a) 9.3 km (5 NM) to be increased to 18.5 km (10 NM) if the navigational accuracy cannot be met for 95 % of the total flight time; or

(b) when flying in accordance with PBN procedures, a distance equal to or greater than the required navigation performance.

GM1 CAT.POL.H.215(a)(3) En-route – critical engine inoperative

RELEVANT TERRAIN AND OBSTACLES IN VFR

The terrain and obstacles to be considered are within the distance on either side of the intended track that is specified in the applicable airspace requirements:

(a) for day VFR, the distances are specified in SERA.5005(f);

(b) for night VFR, the distances are specified in SERA.5005(c), or as authorised by the competent authority.

AMC1 CAT.POL.H.225 Helicopter operations to/from a public interest site

CHANGES TO THE OBSTACLE ENVIRONMENT

If the operator becomes aware of a change to the obstacle environment at an approved public interest site, the operator should:

(a) assess the safety impact of such new obstacles on their operations;

(b) review their site-specific procedures and modify them as necessary;

(c) discontinue operations at the site if necessary;

(d) inform the competent authority of all of the above.

GM1 CAT.POL.H.225 Helicopter operations to/from a public interest site

UNDERLYING PRINCIPLES

[…]

(d) Long-term solution

~~Although not offering a complete solution, it was felt that a significant increase in safety could be achieved by applying an additional performance margin to such operations. This solution allowed the time restriction of 2004 to be removed.~~

(1) The derogation provided for by Article 6(6) of Regulation (EU) No 965/2012, which allows Member States to approve public interest sites under their own conditions, was meant to be a temporary transitional arrangement. This transitional arrangement was only intended to allow the continuation of existing sites. For this reason, any newly approved public interest sites that have been established since 28 October 2014 will have to be phased out by 25 May 2028.

(2) No mandatory phase-out is foreseen for sites approved under a derogation from CAT.POL.H.225 that were established as public interest sites before 28 October 2014.

(3) No mandatory phase-out is foreseen for sites approved under CAT.POL.H.225 that were established as public interest sites before 1 July 2002.

(4) A public interest site should be considered to be established at the time when it was operated in the public interest for the first time.

(5) As of 25 May 2024 there should be no more approvals of public interest sites that were established after 28 October 2014, in accordance with point ARO.OPS.220(c).

(6) As of 25 May 2024 the obstacle environment at approved public interest sites should be kept under continued review in order to avoid new obstacles causing a significant safety impact, in accordance with point ARO.OPS.220(d).

Table 1 — Duration of public interest site approvals

Date on which the approved PIS was established	**Maximum duration of the PIS approval**
Before 28 October 2014	Unlimited duration, provided that there is no permanent worsening of the obstacle environment.
After 28 October 2014	PIS approval to expire on 25 May 2028.

(7) Since a number of hospital sites may remain approved public interest sites in the foreseeable future, it was considered important to keep minimum performance margins when operating these sites.

(i) The ~~required~~ performance level of 8 % climb gradient in the first segment required by point CAT.POL.H.225(a)(5) reflects ICAO Annex 14 Volume II in 'Table 4-~~3~~1 'Dimensions and slopes of obstacle limitations surfaces' ~~for performance class 2~~.

This was established as a means of mitigating performance issues. It defines a proportionate mass penalty at such sites, thereby applying an additional performance margin to such operations in the interest of safety.

(ii) The performance delta is achieved without the provision of further manufacturer's data by using existing graphs to provide the reduced take-off mass (RTOM).

(iii) If the solution in relation to the original problem is examined, the effects can be seen.

(A~~1~~) Solution with relation to (c)(1): although the problem still exists, the safest procedure is a dynamic take-off reducing the time taken to achieve Vstayup and thus allowing VFR recovery — if the failure occurs at or after Vy and 200 ft, an IFR recovery is possible.

(B~~2~~) Solution with relation to (c)(2): as in (c)(1) above.

(C~~3~~) Solution with relation to (c)(3): once again, this does not give a complete solution~~,~~; however, the performance delta minimises the time during which a climb over the obstacle cannot be achieved.

AMC2 CAT.IDE.H.240 Supplemental oxygen — non-pressurised helicopters

OXYGEN STORAGE AND DISPENSING EQUIPMENT

(a) Supplemental oxygen requirements may be met either by means of either installed or portable equipment.

(b) The use of oxygen dispensers should not prevent the crew from performing their intended tasks, including any radio communications.

(c) The oxygen-dispensing unit may consist of a nasal oxygen cannula.