European Aviation Safety Agency

COMMENT RESPONSE DOCUMENT (CRD) TO NOTICE OF PROPOSED AMENDMENT (NPA) 2009-02B

for an Agency Opinion on a Commission Regulation establishing the Implementing Rules for air operations of Community operators

and

draft Decision of the Executive Director of the European Aviation Safety Agency on Acceptable Means of Compliance and Guidance Material related to the Implementing Rules for air operations of Community operators

"Part-OPS"

CRD c.3 – Comment response summary table for Annex I - Definitions for terms used in Annexes II - VI

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Scope

This CRST document shows revisions to the NPA text of OPS.GEN.001 to OPS.GEN.010.

It contains Annex I – Definitions for terms used in Annexes II – VI.

Column A: displays the NPA rule version, with changes to the text shown in **bold** and ~~strikethrough~~.

Column B: provides a summary of comments received, which have been coded as followed:

MS: Member State

IS: industry sector

IA: industry association

INDIV: individual

Column C: provides the responses, justifying the reasons for changing or retaining the NPA text.

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I. Draft Opinion Part – Air Operations (Part-OPS)		
~~**Subpart A – General operating and flight rules**~~		
~~**Section I – General Requirements**~~		
~~**OPS.GEN.001 Competent authority**~~		Replaced with the Cover Regulation to the OPS Parts.
~~For the purpose of this subpart, the competent authority shall be:~~		
~~(a) for the oversight of non-commercial operations of non-complex motor-powered aircraft, the authority designated by the Member State where the aircraft is registered; and~~	MS, IND: comments to the Explanatory Note - request for definitions for non-commercial operations and non-complex motor-powered aircraft;	The definition for complex motor-powered aircraft is given in Article 3(j) to Regulation (EC) No 216/2008, and is not duplicated in this Annex. By default, all motor-powered aircraft that do not fit this definition are non-complex motor-powered air-craft. A definition for 'non-commercial operations' is not given. Please note that 'commercial operations' are defined in Article 3(i) to Regulation (EC) No 216/2008. In addition, that Regulation (and therefore these Implementing Rules) does not apply to military, customs, police, search and rescue, fire fighting, coastguard

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		or similar activities or services.
~~(b) for the oversight of commercial operations and non-commercial operations of complex motor-powered aircraft, the authority designated by the Member State where the operator has its principle place of business.~~	IND, INDIV: comments to the Explanatory Note - request for a definition of 'commercial operations';	The definition for 'commercial operations' is given in Article 3(i), Regulation (EC) No 216/2008 and for legal certainty it is not duplicated here.
~~**OPS.GEN.005 Scope**~~		Replaced with the Cover Regulation to the OPS Parts.
~~This subpart establishes the requirements to be met by an operator to ensure that air operations are conducted in compliance with Article 8 in conjunction with Annex IV to Regulation (EC) No 216/2008 (Essential requirements for air operations).~~		Replaced with the Cover Regulation to the OPS Parts.
~~**OPS.GEN.010 Definitions**~~**Annex I - Definitions for terms used in Annexes II-VI**	1. MS, IND: request that all definitions in the NPA be available as a 'consolidated definitions', and as IR; 2. IND: definitions should be consistently placed at the same level throughout the NPA (i.e. as IR or AMC); 3. IND: request a single consolidated definitions for all EASA terms/definitions;	1, 2 The Agency has decided to place the definitions in Annex I to the new Regulation on air operations for those terms that are used in Implementing Rules. For those terms that are only used in AMC or GM, definitions have been largely placed in AMC-Definitions. 3. The Agency sees the value of the proposal, and will provide consolidated definitions in this Annex

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	4. IND: request that it be clearly stated where definitions apply only to particular aircraft types; 5. Additional definitions requested per ICAO and EU/JAR-OPS;	for Implementing Rules in the OPS Parts, and another consolidated set for AMC/GM. It is not appropriate to place all definitions in Annex I, for those terms that are not used in the Implementing Rules. 4. This should be clear from the definition itself. Minor changes have been made to a few definitions to clarify this issue. 5. Some additional definitions from ICAO and EU/JAR-OPS have been included in this Annex, for those terms that are used in Implementing Rules. This is indicated in the response by each additional definition. For those terms used in AMC/GM, a separate consolidated set of definitions as an AMC has been drafted.
(a) For the purpose of this ~~subpart~~**R~~r~~egulation**, the following definitions shall apply:	1. Many commentators requested that definitions for the following be added: Balloon, child/children, commercial air transport operation, dangerous goods accident, dangerous goods incident, helicopter, HEMS crew member, HHO crew member, HHO passenger,	1. These definitions have been added to Annex I. 2. Definitions have been added to AMC Definitions, as the terms are used in AMC/GM only. 3. Definitions were not added here, as these terms are not used in the

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	medical passenger, performance class A, B, C for aeroplanes, pilot-in-command, separate runways, suitable aerodrome, Technical Instructions. 2. Many commentators requested that definitions for the following be added: Committal point (CP), emergency locator transmitter (ELT), exposure time, rotation point, touch down and lift-off area (TLOF). 3. Many commentators requested that definitions for the following be added: handling agent, human external cargo operation, human factors principles, human performance, ID number, obstacle clearance altitude, operations specifications, rotor radius, safety programme, State of origin, take-off and initial climb phase, UN number. 4. Many commentators requested that definitions for the following be added: Emergency locator transmitter (ELT), integrated survival suit, master minimum equipment list (MMEL), MEL.	Implementing Rules, or are appropriately described in the AMC/GM. For those terms that are used in Part-OR or Part-AR, definitions can be found in the Cover Regulations to those Parts. 4. Definitions have not been added, as the Agency does not intend to define all equipment terms covered by this Regulation.

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	5. Several commentators requested that definitions be given for ETOPS, performance-based navigation, required communication performance, RNAV. 6. MS: request definitions for safety management system and cabin crew member be added; 7. MS: request definitions for the following: airship, approach ban point, cargo aircraft, freight container, maximum permitted exposure time, reported headwind component.	5. Definitions have not been given as the requirements cover these issues in suitable depth. 6. Safety management system is described in detail in Part-OR. Cabin crew member is defined in the Cover Regulation to Part-OR. 7. Definitions have not been included as the terms are not used in the OPS Parts.
~~(1)~~'**Fuel** ~~3%En-Route Alternate (~~ERA~~)~~ aerodrome' means an ERA aerodrome selected for the purpose of reducing contingency fuel ~~to 3%~~.	1 IND: request to rename the term as *'fuel en-route alternate aerodrome (Fuel ERA)'* and remove '3%', as the purpose of selecting such an ERA is to reduce the amount of contingency fuel but not necessarily to 3%. 2 MS: request to add *'and/or replacing one destination alternate aerodrome when two are required'* as OPS.CAT.155.A(b) allows operators to select one destination alternate and one ERA aerodrome.	1. The term has been changed accordingly, and the '3%' removed as this figure is contained in the rules covering fuel policy (AMC1-CAT.OP.150). 2. As this issue is covered by the rule mentioned above, it is not necessary to add it to the definition.

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~~(2)~~'Acceptance ~~Check List'~~**checklist'** means a document used to assist in carrying out a check on the external appearance of packages of dangerous goods and their associated documents to determine that all appropriate requirements have been met **with**.	1 IND: request to clarify in the definition that the operator should check marking and labelling on packages, and to amend to '… to determine, *to the extent possible,* that all …';	The definition is aligned with EU-OPS. The suggested amendment would introduce a level of uncertainty to the definition and therefore the text has not been amended.
~~(3)~~'Adequate aerodrome' means an aerodrome on which the aircraft can be operated, taking account of the applicable performance requirements and runway characteristics.	1 IND, 1 MS: request to re-align with the definition in EU-OPS 1.192 and include the elements listed in GM1 OPS.GEN.145 in this definition;	The definition remains aligned with that published in the NPA. However, the 'necessary ancillary services' are described within the appropriate Implementing Rules (SPA.ETOPS.100.A and in CAT.OP.AH).
~~(4)~~**For the purpose of passenger classification:** **(a)** '**a**~~A~~dult' means a person of an age of 12 years and ~~over~~**above;** **(b) 'child/children' means persons who are of an age of two years and above but who are less than 12 years of age; and** **(c) 'infant' means a person under the age of two years.**~~.~~	Several commentators requested that a definition for 'child/children' be added;	The definition has been added accordingly, and the definitions for 'adult' and 'infant' grouped together, following the definition for passenger classification given in EU-OPS.
~~(5) 'Aerodrome'means any area on land, water or man made structure or vessel, especially adapted for the landing, taking-off and manoeuvring of~~	1. Eurocontrol: request to align the definition with ICAO; 2. IND: request clarification that	As 'aerodrome' is defined in Article 3(m) of Regulation (EC) No 216/2008, it is not included here, to avoid possible misalignment of the

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~~aircraft;~~	'aerodrome' includes heliports meeting Annex XIV Vol. 2 requirements, and all other sites referred to in the NPA as 'Operating sites' are covered by the generic term 'heliport' as used in Annex XIV and JAR-OPS 3;	definitions in the future.
~~(6)~~ 'Aeroplane' means an engine-driven fixed-wing aircraft heavier than air that is supported in flight by the dynamic reaction of the air against its wings.~~;~~	1 IA, Eurocontrol: request to align the definition with ICAO;	The definition follows that in Part-FCL and remains unchanged to ensure that the Agency's definitions remain aligned.
'Aided night vision imaging system (aided NVIS) flight' means, in the case of NVIS operations, that portion of a visual flight rules (VFR) flight performed at night when a crew member is using night vision goggles (NVG).		Editorial decision to place the definition in Annex I, following amendments to SPA.NVIS (which is based on JAA TGL 34).
~~(7)~~ 'Aircraft' means a machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.~~;~~		
~~(8)~~'Anti-icing' means ~~the~~ **a** procedure that provides protection against the formation of frost or ice and accumulation of snow on treated surfaces of the aircraft for a limited period of time (hold-over time).	1 MS: request to amend for clarification (hold-over time applies only to aeroplanes) to *'… the procedure applied to an aeroplane on the ground that …'*;	The definition remains unchanged as the Implementing Rules specify that these procedures are to be carried out on the ground. Minor edit to improve clarity.

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'Balloon' means a lighter-than-air aircraft which is not engine-driven and sustains flight through the use of either gas or an airborne heater.		Following comments, the definition has been added and is aligned with that in Part-FCL.
'Category II (CAT II) operation' means a precision instrument approach and landing operation using ILS or MLS with: **(a) DH below 200 ft but not lower than 100 ft; and** **(b) RVR of not less than 300 m.**	MS: request to upgrade the definition from Appendix 3 to AMC1 OPS.SPA.020.LVO;	The definition has been moved accordingly.
'Category IIIA (CAT IIIA) operation' means a precision instrument approach and landing operation using ILS or MLS with: **(a) DH lower than 100 ft; and** **(b) RVR not less than 200 m.**	1. MS: request to upgrade the definition from Appendix 3 to AMC1 OPS.SPA.020.LVO; 2. IND: request to amend (i) to 'a decision height (DH) lower than 100 ft *or no decision height'*;	1. The definition has been moved accordingly. 2. The definition remains aligned with EU-OPS and only minor editorial changes have been made.
'Category IIIB (CAT IIIB) operation' means a precision instrument approach and landing operation using ILS or MLS with: **(a) DH lower than 100 ft, or no DH; and** **(b) RVR lower than 200 m but not less than 75 m.**	IA: request to upgrade the definition from Appendix 3 to AMC1 OPS.SPA.020.LVO;	The definition has been moved accordingly.
~~(9)~~'Category A with respect to helicopters' means multi-engine**d** helicopters designed with engine and system isolation features specified in ~~CS-27/29 or equivalent~~**the applicable airworthiness codes** and **aircraft** ~~Helicopter~~	1 INDIV, 1 IND: editorial change suggested: '… CS-27/29 or equivalent *certification standards/requirements*…';	As CSs should not be referenced to in these definitions, 'CS 27/29 or equivalent' has been changed to 'applicable airworthiness codes'. From

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f~~F~~light **m**~~M~~anual performance information based on a critical engine failure concept which assures adequate designated surface area and adequate performance capability for continued safe flight in the event of an engine failure.		the original JAR-OPS 3 definition, only the text 'acceptable to the authority' has been removed, as this competency now lies with the Agency. 'Equivalent' is explained in the AMC to this definition.
~~(10)~~'Category B with respect to helicopters' means single-engine or multi**-**engine**d** helicopters which do not ~~fully~~ meet all Category A standards. Category B helicopters have no guaranteed stay-up ability in the event of engine failure and unscheduled landing is assumed.		
'Circling' means the visual phase of an instrument approach to bring an aircraft into position for landing on a runway/FATO which is not suitably located for a straight-in approach.	IA: request to move the definition from GM to an Implementing Rule;	The definition has been moved from GM OPS.GEN.010 to Annex I, following comments, and as the term is used in Implementing Rules covering LVO.
'Clearway' means a defined rectangular area on the ground or water under the control of the appropriate authority, selected or prepared as a suitable area over which an aeroplane may make a portion of its initial climb to a specified height.		Editorial decision to add the definition to Annex I as the term is used in AFM approvals. It is aligned with the definition in ICAO Annex 8.
~~(11)~~'Cloud base' means the height of the base of the lowest observed or forecast cloud element in the vicinity of an aerodrome or operating site or within a specified area of operations, normally measured above aerodrome elevation	1. IA: request clarification that 'vicinity' means 8km, as per ICAO Annex 3; 2. INDIV: request that cloud base is	1.'Vicinity' is not need defined in the OPS Parts as this term refers to MET tasks, which are covered within the 2nd extension.

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or, in the case of offshore operations, above mean sea level.	defined in octas; 3. IND (General Aviation): request to amend definition to *'…or forecasted clouds (except of cb-clouds) with more than 2/8 coverage in vicinity of an aerodrome or operating site or within a specified area of operations, measured or estimated above aerodrome elevation (ftgnd) or, in case of offshore operations, above mean sea level (ftmsl)'*;	2, 3. The definition remains unchanged as it is aligned with JAR-OPS 3. The related term 'ceiling' is defined in Part-SERA, and has not been included in this regulation.
'Commercial air transport (CAT) operation' means an aircraft operation to transport passengers, cargo or mail for remuneration or other valuable consideration.		The Agency decided to include a definition to Annex I based on that from ICAO, and aligned with the definition of 'commercial operation' in the Basic Regulation by referring to 'other valuable consideration' rather than 'hire'.
~~(12)~~'Congested area' means in relation to a city, town or settlement, any area which is substantially used for residential, commercial or recreational purposes.	1. INDIV: request to amend the definition in line with the Oxford English Dictionary; 2. MS: request to add for clarity *'… if persons or property are exposed to an unacceptable risk in respect to the operation'*;	1. The definition is aligned with that given in ICAO Annex 6, Part III and remains unchanged. 2. This issue is covered in the definition of 'hostile environment'.

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~~(13)~~'Contaminated runway' means a runway of which more than 25% of the runway surface area ~~(whether in isolated areas or not)~~ within the required length and width being used is covered by the following:	1. IA: request to amend the definition to include *'... or (iv) those runways which exhibit an equivalent aircraft braking action less than those assumed for a wet runway'* so as to include slippery runways, for which manufacturer guidance is available; 2. MS: for safety reasons, request to amend text to *'(i) water, slush or snow more than 3mm (0.125 in) deep; or (ii) any depth of compacted snow or ice, including wet ice'* as dry snow less than 20 mm in depth will result in lower friction levels than a normal wet runway; 3. IND: request to add 'dry snow'; 4. IND: request o change 'loose snow' to '*dry* snow' as the former is not widely used; 5. FAA: request to harmonise with FAA TALPA ARC recommendations, to consider any amount of standing wet water or other form of contamination as 'contaminated runway';	1-5 The definition is in alignment with EU-OPS and remains unchanged for the moment. A future rulemaking task would consider amending the definitions for runway surface conditions, including consideration of ICAO Annex 6, Part I, amendment 33 definition of the 'runway surface condition'.
(**a**~~i~~) **s**~~S~~urface water more than 3 mm (0.125 in) deep, or by slush, or loose snow, equivalent to more than 3 mm		

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(0.125 in) of water;		
(**b~~ii~~**) **s~~S~~**now which has been compressed into a solid mass which resists further compression and will hold together or break into lumps if picked up (compacted snow); or		
(**c~~iii~~**) **i~~I~~**ce, including wet ice.		
~~(14) 'Controlled flight' means any flight which is subject to an air traffic control clearance.~~	1. MS: request to improve clarity and add '… *(the term may also be used to indicate a flight under the full control of its crew as in the expression "controlled flight into terrain")*;	The definition has been deleted here as the term has the same definition in Part-SERA. However, a consistency check has been made on the rules to ensure that the terms 'controlled flight' and 'controlled flight into terrain' are appropriately used.
'Contingency fuel' means the fuel required to compensate for unforeseen factors which could have an influence on the fuel consumption to the destination aerodrome.		Moved from AMC1 OPS.CAT.010 to Annex I, in response to stakeholder requests. The second part of the definition listing possible reasons for deviations from expected fuel consumption has been deleted, as it is not an exhaustive list.
'Continuous descent final approach (CDFA)' means a technique, consistent with stabilised approach procedures, for flying the final-approach segment of a	IA: request to add the definition;	The definition has been moved from GM OPS.GEN.010 to Annex I, as it is used in the Implementing Rules.

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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 shall begin for the type of aircraft flown.		Further edited following review of CAT.OP by the CAT review group to apply the term to all aircraft. It also aligns with the definition in amendment 3 to PANS-OPS volume I.
'Converted meteorological visibility (CMV)' means a value, equivalent to an RVR, which is derived from the reported meteorological visibility.		The definition has been moved from GM OPS.GEN.010 to Annex I, following comments and as it is used in the Implementing Rules covering LVO. The last phrase in the EU-OPS definition has been deleted as the Implementing Rules and related AMC cover how this value is to be derived.
'Crew member' means a person assigned by an operator to perform duties on board an aircraft.		Following feedback from review group members, a decision was taken to include this definition.
~~(15)~~'Critical phases of flight' **in the case of aeroplanes** mean~~s~~ the take-off run, the take-off flight path, the final approach, **the missed approach,** the landing**,** including the landing roll, ~~the go-around~~ and any other phases of flight as determined by the pilot-in-command **or commander**. ~~For helicopters, 'critical phases of flight' includes in addition **hovering and** taxiing.~~ **'Critical phases of flight' in the case of helicopters**	1. INDIV: request that for helicopters 'air-taxi' be included (for helicopters without wheel-type landing gear); 2. IND (Business Aviation): request to amend the definition, to clarify that it applies when all engines are operative, to "…*take-off run, the path after the take-off run to such a point*	1., 3. The intention is that 'taxiing' includes air taxiing. The pilot-in-command/commander has also to define what are critical phases of flight, depending on the operation. 2. The definition is aligned with EU-OPS as regards aeroplane operations, with 'go-around' replaced by 'missed

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mean those phases specified by the pilot-in-command or commander and include taxiing, hovering, take-off, final approach, missed approach and landing.	*where landing gear and lift devices are retracted, the final approach, the landing including the landing roll …*"; 3. MS, IND: add "*translation*", "*hovering manoeuvres*" and "*air-taxiing*" for helicopters;	approach' (based on the OPSG Working Paper (JAA)).
~~(16)~~'D' means the largest dimension of the helicopter when the rotors are turning.		Following comments that 'D' is differently defined within aeroplane IRs, the helicopter rules have been reviewed and the term described within the Implementing Rule itself (CAT.POL.H.110). The definition has therefore not been included in Annex I.
~~(17)~~'Dangerous goods **(DG)**' means articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions.	1. MS: request to include a reference to ICAO Doc 9284 (TI Dangerous Goods) as a generic reference for all dangerous goods definitions;	A reference to the Technical Instructions is given in these definitions. The Agency does not consider it appropriate to make a specific statement to look to the TI for dangerous goods-specific definitions.
'Dangerous goods accident' ~~shall~~ means an occurrence associated with and related to the transport of dangerous goods by air which results in fatal or serious injury to a person or major property damage.	MS: request to add a definition for DG accident;	The definition has been moved from Dangerous Goods (note 2 to AMC OPS.GEN.030(d)(1)) to Annex I.

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'Dangerous goods incident' ~~shall~~ means an occurrence other than a dangerous goods accident associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, which results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packaging has not been maintained. Any occurrence relating to the transport of dangerous goods which seriously jeopardis~~z~~es an aircraft or its occupants is also deemed to be a dangerous goods incident.	MS: request to add a definition for DG incident;	The definition has been moved from Dangerous Goods (note 3 to AMC OPS.GEN.030(d)(1)) to Annex I.
~~(18)'Dangerous **g**Goods **t**Transport **d**Document' means a document which is specified by the Technical Instructions. It is completed by the person who offers dangerous goods for air transport and contains information about those dangerous goods.~~		The definition has been deleted, as the requirement for the person to complete this document has been inserted into SPA.DG.105.
~~(19)~~'Defined point after take-off (DPATO)' means the point, within the take-off and initial climb phase, before which the helicopter's ability to continue the flight safely, with ~~the critical power unit~~**the critical engine** inoperative, is not assured and a forced landing may be required.	1. Eurocontrol: request to align the definition with ICAO; 2. MS: request to have definition for DPBL upgraded and listed by that for DPATO;	1. The definition remains aligned with JAR-OPS 3, which refers to the 'critical engine inoperative' rather than 'one engine inoperative'. 2. The definition has been moved to Annex I.
~~(20)~~'De-icing' means ~~the~~ **a** procedure by which frost, ice, snow or slush is removed from an aircraft in order to provide uncontaminated surfaces.	1. Eurocontrol: request to align the definition with ICAO; 2. MS: request to clarify that this is	1. The definition is in line with that provided in ICAO Doc 9640, with a minor edit.

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	only a ground procedure, by adding 'De-icing' *with respect to ground procedures* means …';	2. The definition remains unchanged as the Implementing Rules specify that these procedures are to be carried out on the ground.
'Defined point before landing (DPBL)' means the point within the approach and landing phase, after which the helicopter's ability to continue the flight safely, with the critical engine inoperative, is not assured and a forced landing may be required.	MS: request to place the definition for DPBL together with that for DPATO and in an Implementing Rule;	The term has been moved from GM3 OPS.CAT.355.H to Annex I. The term remains aligned with JAR-OPS 3, which refers to 'the critical engine inoperative' in comparison with the ICAO definition, which refers to 'one engine inoperative'.
~~(21) 'Disruptive passenger' means a passenger who fails to respect the rules of conduct on board an aircraft or to comply with the instructions of crew members.~~	1. IA: request to clarify what 'rules of conduct' are, and where they are specified; 2. IND: request to ensure there is no confusion with 'potentially disruptive passenger' as defined in Regulation (EC) 300/2008;	As the term is no longer used in the Implementing Rules, it is deleted from this list.
~~(22)~~'**Distance** DR' means the horizontal distance that the helicopter has travelled from the end of the take-off distance available.	MS: request to use a different term as DR is normally used in aviation for 'dead reckoning';	The term has been aligned with JAR-OPS 3, 3.480 as 'Distance DR'.
~~(23)~~'Dry operating mass' means the total mass of the aircraft ready for a specific type of operation, excluding usable fuel and traffic load. ~~The dry operating mass includes:~~	1. IA: request to add *'(iv) technical liquids (e.g. oil and hydraulic fluids)*'; 2. IND (General Aviation): proportionality – current definition	1. The current definition is aligned with EU-OPS 1.607. 2. For proportionality, the second part of the definition has been transposed

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	cannot apply to small aircraft;	in AMC to this term in Part-CAT, Part-NCC and Part-NCO (Subpart performance and operating limitations).
~~(i) crew and crew baggage;~~		
~~(ii) catering and removable passenger service equipment; and~~		
~~(iii) tank water and lavatory chemicals.~~		
~~(24)~~'Dry runway' means a runway which is neither wet nor contaminated, and includes those paved runways which have been specially prepared with grooves or porous pavement and maintained to retain 'effectively dry' braking action even when moisture is present.	1. IND: request for clarification if dry performance can be used for a grooved/porous runway where Wet grooved runway performance is not specifically available; 2. IA, IND: safety case to align with ICAO Annex 6, Part I, amdt 33 – no test has shown that grooved/PFC runways provide effectively dry braking action;	1, 2. The definition is in alignment with EU-OPS and remains unchanged for the moment. A future rulemaking task would consider amending the definitions for runway surface conditions, including consideration of the ICAO Annex 6, Part I definition of the 'runway surface condition' in amendment 33.
~~(25)~~'Elevated **final approach and take-off area (elevated** FATO**)**' means a FATO which is at least 3 m~~etres~~ above the surrounding surface.	1. IND (General Aviation): request to identify definitions as aircraft-specific, as appropriate, and to write out abbreviations in full;	The definition of 'aerodrome' in Regulation (EC) No 216/2008 encompasses heliports, and with the inclusion of the term 'operating site', 'heliport' has become obsolete for this

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	2. MS: request to add JAR-OPS 3 definition for heliport, to also align with ICAO;	Regulation. An 'elevated aerodrome' does not make sense, as only the final approach and take-off area may be elevated, not the whole aerodrome as such.
~~(26)~~'Enhanced **v**~~V~~ision **s**~~S~~ystem (EVS)' ~~shall~~ mean**s** an electronic means of displaying a real-time image of the external scene through the use of imaging sensors**.**~~;~~	1. Eurocontrol: request to align the definition with ICAO; 2. IND: request for clarity to add "… use of *infrared* imaging sensors" (to avoid confusion with NVIS);	1. The definition aligns with EU-OPS and remains unchanged. 2. The definition remains unchanged, as several means of producing the images are available, not only infrared.
~~(27)~~'En-**r**~~R~~oute **a**~~A~~lternate (ERA) **a**~~A~~erodrome' means an adequate aerodrome along the route, which may be required at the planning stage.	Eurocontrol: request to align the definition with ICAO;	The definition is aligned with EU-OPS and remains unchanged.
~~(28)~~'Final **a**~~A~~pproach and **t**~~T~~ake-**o**~~O~~ff **a**~~A~~rea (FATO)' means a defined area for helicopter operations, over which the final phase of the approach manoeuvre to hover or land is completed, and from which the take-off manoeuvre is commenced. In the case of helicopters operating in performance **c**~~C~~lass 1, the defined area includes the rejected take-off area available.	1 MS: request to align with ICAO/JAR-OPS 3 and use the term heliport with its definition;	The definition of 'aerodrome' in Regulation (EC) No 216/2008 encompasses heliports, and with the inclusion of the term 'operating site', 'heliport' has become obsolete for this Regulation. The definition for FATO is aligned with that in JAR-OPS 3 and closely follows that of ICAO Annex 6.
'G~~NSS~~BAS landing system (GLS)' means an approach landing system using ground based augmented global		The term has been changed from 'GNSS landing system' to 'GBAS

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navigation satellite system (GNSS) information to provide guidance to the aircraft based on its lateral and vertical GNSS position. It uses geometric altitude reference for its final approach slope.		landing system', and the definition has been moved from GM OPS.GEN.010 to Annex I. Edited to align with ICAO PANS ATM and PANS ABC.
~~(29)~~'Ground emergency service personnel' ~~shall~~ mean**s** any ground emergency service personnel (such as policemen, firemen, etc.) involved with **h**~~H~~elicopter **e**~~E~~mergency **m**~~M~~edical **s**~~S~~ervice (HEMS) and whose tasks are to any extent pertinent to helicopter operations**.**~~;~~	INDIV, IND: request to alter the definition to only those personnel '*…who have a dedicated task in helicopter operations*';	The current definition remains aligned with Appendix 1 to JAR-OPS 3.005(d).
'Head-up display (HUD)' means a display system which presents flight information to the pilot's forward external field of view and which does not significantly restrict the external view.		Transferred from GM1 OPS.SPA.001.LVO as the term is used in Implementing Rules. Minor edit made for clarity.
'Head-up guidance landing system (HUDLS)' means the total airborne system which provides head-up guidance to the pilot during the approach and landing and/or missed approach procedure. It includes all sensors, computers, power supplies, indications and controls.		Transferred from GM1 OPS.SPA.001.LVO, with the last sentence as GM to this definition.
'Helicopter' means a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.		Definition added, aligned with that in Part-FCL.

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~(30)~~'Helicopter **e**~~E~~mergency **m**~~M~~edical **s**~~S~~ervice (HEMS) flight' ~~shall~~ mean**s** a flight by a helicopter operating under a HEMS approval, the purpose of which is to facilitate emergency medical assistance, where immediate and rapid transportation is essential, by carrying:	MS: request to delete (i)-(iii) as this list excludes too many things;	As the definition has been contained in JAR-OPS 3 for a long time without this question arising, the Agency sees no reason to change the definition without a detailed justification of what is excluded. For further information please see the response directly below.
(**a**~~i~~) medical personnel; ~~or~~		
(**b**~~ii~~) medical supplies (equipment, blood, organs, drugs); or	1. IND (General Aviation): request that transport of all kinds of medical supplies not be considered as HEMS. 2. IND, INDIV: request that blood, organs, drugs that do not require medical equipment shall not be considered as HEMS, and that the NAA should decide for this issue;	1, 2: The definition is aligned with that given in Appendix 1 to JAR-OPS 3.005(d). When medical supplies are transported by an operator without an EMS approval, this should be considered as unscheduled air transport, and be operated to the CAT standard without the use of the alleviations applicable to EMS. This is also addressed in the HEMS philosophy, GM1-SPA.HEMS.100(a).
(**c**~~iii~~) ill or injured persons and other persons directly involved.		
'Helicopter hoist operation (HHO) crew member' means a technical crew member who performs		Editorial decision to add the definition following review of SPA.HHO.

A: Rule	B: Summary of comments	C: Reason for change, remarks
assigned duties relating to the operation of a hoist.		
~~(31)~~'Helicopter **h~~H~~**oist **o~~O~~**perations (HHO) **f~~F~~**light' ~~shall~~ mean**s** a flight by a helicopter operating under an HHO approval, the purpose of which is to facilitate the transfer of persons and/or cargo by means of a helicopter hoist**.**~~;~~	MS, INDIV: request to add *"Human External Cargo operation – the transport of persons with an HHO approval or a long line approval*";	'Human external cargo' is a term that is not used in the rules, and therefore cannot be included in this list of definitions. 'Long line' is not the same as a hoist operation and is therefore not included.
~~(32)~~'Helideck' means a FATO located on a floating or fixed offshore structure.	1. Eurocontrol, MS: request to align the definition with ICAO/JAR-OPS 3.480, and insert the definition for 'heliport'; 2. MS: this definition is in conflict with that for an aerodrome;	1. The definition of 'aerodrome' in the Basic Regulation encompasses heliports, and with the inclusion of the term 'operating site', 'heliport' has become obsolete for this Regulation. 2. Although the definition for 'aerodrome' in the Basic Regulation encompasses 'helidecks', it is important to retain this definition as it would otherwise be difficult to cover operations to and from a helideck in the rules and AMC/GM.
~~(33) 'HEMS dispatch centre' shall mean a place where, if established, the coordination or control of the HEMS flight takes place. It may be located in a HEMS operating base;~~		The definition has been transferred to AMC to this Annex, as the term is not used in Implementing Rules.
'HEMS crew member' means a technical crew member who is assigned to a HEMS flight for the purpose of		The definition has been added (aligned with that given in JAR-OPS

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attending to any person in need of medical assistance carried in the helicopter and assisting the pilot during the mission.		3), as the term is used in SPA.HEMS.
~~(34)~~'HEMS operating base' ~~shall~~ mean**s** an aerodrome at which the HEMS crew members and the HEMS helicopter may be on stand-by for HEMS operations**.**~~;~~	INDIV: request to amend definition to '… *aerodrome or heliport*';	The definition of 'aerodrome' in Regulation (EC) No 216/2008 encompasses heliports, and with the inclusion of the term 'operating site', 'heliport' has become obsolete for this Regulation.
~~(35)~~'HEMS operating site' ~~shall~~ mean**s** a site selected by the ~~pilot in~~ command**er** during a HEMS flight for **h**~~H~~elicopter **h**~~H~~oist **o**~~O~~perations, landing**,** and take**-**off**.**~~;~~	MS: for clarification, request to amend to "… *a HEMS flight for landing, take-off and hoist or human long line operation*";	The definition remains aligned with that in JAR-OPS 3. As human long-line operations are not to be considered as part of HEMS operations, they are not included in the definition. A long-line is an extraction method, and therefore falls under the remit of search and rescue, and is beyond the scope of these rules.
~~(36)~~'HHO **o**~~O~~ffshore' ~~shall~~ mean**s** a flight by a helicopter operating under an HHO approval, the purpose of which is to facilitate the transfer of persons and/or cargo by means of a helicopter hoist from or to a vessel or structure in a sea area or to the sea itself**.**~~;~~		
~~(37)~~'**Helicopter hoist operation (**HHO**)p**~~P~~assenger' ~~shall~~ mean**s** a person who is to be transferred by means of a		

A: Rule	B: Summary of comments	C: Reason for change, remarks
helicopter hoist**.**~~;~~		
~~(38)~~'**Helicopter hoist operation (**HHO**)** ~~**Operating s**~~Site' ~~shall~~ mean**s** a specified area at which a helicopter performs a hoist transfer~~;~~**.**	MS: request for consistency with OPS.SPA.XXX.HHO, by using 'HHO *Operating* Site';	The definition aligns with JAR-OPS 3, and this term has now been used consistently throughout the rules.
~~(39)~~'Hold-over **t**~~T~~ime (HoT)' means **the estimated time the anti-icing fluid** ~~**(treatment)**~~ **will prevent the formation of ice and frost and the accumulation of snow on the protected (treated) surfaces of an aeroplane.**~~the estimated period of time for which an anti-icing fluid is expected to prevent the formation of frost or ice and the accumulation of snow on the treated surfaces of an aircraft on the ground in the prevailing ambient conditions.~~	1. Eurocontrol: Request to align the definition with ICAO; 2. MS: request to replace 'aircraft' with 'aeroplane' as the procedure applies only to aeroplanes; 3. IA: request to specify more types of precipitation (e.g. FZRA);	1, 2 The text has been changed accordingly. 3. The text is aligned with ICAO and has not been further amended.
~~(40)'Hoist Cycle' shall mean one down-and-up cycle of the hoist hook for the purpose of the setting of crew qualifications;~~		The term has now been suitably defined with the IR (SPA.HHO.130) and its definition has not been included in Annex I.
~~(41)~~**'**Hostile environment**' means:**~~:~~		
(**a**~~i~~) **a**~~A~~n environment in which:	IND: request for Guidance Material giving examples, and clarity as to who has the final responsibility for defining hostile/non-hostile areas;	The GM to this definition gives clarity on this issue.

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~(A)~~**i. a**~~A~~ safe forced landing cannot be accomplished because the surface is inadequate; ~~or~~	MS: the definition could mean that the mountain area of Switzerland be interpreted as hostile. Request to edit (i)(A) to "A safe forced landing cannot be accomplished *in any case* …";	The text remains unchanged as the proposal is not clear what 'in any case' would add to the existing text.
~~(B)~~**ii. t**~~T~~he helicopter occupants cannot be adequately protected from the elements; ~~or~~		
~~(C)~~**iii. s**~~S~~earch and rescue response/capability is not provided consistent with anticipated exposure; or		
~~(D)~~**iv. t**~~T~~here is an unacceptable risk of endangering persons or property on the ground.		
(**b**~~ii~~) In any case, the following areas shall be considered hostile:	IND: request that those open seas/mountains/deserts considered to be a hostile environment should be designated by the appropriate authority in the appropriate Aeronautical Information Publication or other suitable documentation;	The text remains unchanged, as (a) indicates whether to consider a mountain area as hostile (weather conditions and the surface need to be taken into account).
~~(A)~~**i. f**~~F~~or overwater operations, the open sea areas North of 45N and South of 45S designated by the **a**~~A~~uthority of the State concerned; and		

Annex I – Definitions | CRST

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~(B)~~**ii.** those parts of a congested area without adequate safe forced landing areas.		
~~(42) 'Infant' means a person under the age of 24 months.~~		Moved to the definition for passenger classification in this Annex, which is aligned with that provided in EU-OPS.
'Landing decision point (LDP)' means the point used in determining landing performance from which, a ~~power unit~~ n engine failure having been recognised at this point, the landing may be safely continued or a ba~~u~~lked landing initiated.		Transferred from AMC1 OPS.CAT.010 Definitions as the term is used in Implementing Rules, and slightly edited for consistency with helicopter rules.
~~(43)~~'Landing distance available (LDA)' means the length of the runway which is declared available by the ~~competent authority~~**State** of the aerodrome and suitable for the ground run of an aeroplane landing.	Eurocontrol: request to align the definition with ICAO;	The text remains unchanged and aligned with EU-OPS.
~~(44)~~'Landplane' means a fixed wing aircraft which is designed for taking off and landing on land and includes amphibians operated as landplanes.	IND: request clarification of relevance to commercial air transport;	The term is used in CAT.POL.A.320 En-route – single-engine aeroplanes.
~~(45) 'Local operations' means flights operations conducted within a local and defined geographical area which:~~	INDIV: request to delete this term as it is not used in the NPA;	A new definition for 'local helicopter operation' has been drafted and its use checked for consistency across the technical Parts. It is based on Appendix 1 to JAR-OPS 3.005(f).

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A: Rule	B: Summary of comments	C: Reason for change, remarks
~~(i) start and end on the same day;~~	IND: difficult to apply this rule to HEMS operations which are often at night – request to change to *"(i) within a 24 hour period"*;	The newly drafted definition applies only to CAT operations; separate provisions for HEMS are contained in Part-SPA.
~~(ii) are conducted by day under VFR; and~~	INDIV, IND, MS: request to add to (ii) "*and night"* particularly for Nordic countries;	The new definition permits operations by day, navigating by reference to visual landmarks.
~~(iii) are navigated over routes by reference to visual landmarks.~~**'Local helicopter operation' means a CAT operation of helicopters with a maximum certificated take-off mass (MCTOM) over 3 175 kg and a maximum passenger seating configuration (MPSC) of nine or less, by day, over routes navigated by reference to visual landmarks, conducted within a local and defined geographical area specified in the operations manual.**	1. INDIV: request to add for helicopter operations "*(iv) Flights start and end at the same location*"; 2. MS: request to align with AMC OPS.CAT.235 and add (iv) "*encompass an area within a distance of 25 NM*";	1. This is not included. 2. This has not been included in the definition – the area will be specified in the operations manual and therefore requires approval by the competent authority. This offers the flexibility to define a suitable area based on local geography and terrain.
~~(46)~~'Low **v**~~V~~isibility **p**~~P~~rocedures (LVP)' ~~shall~~ mean**s procedures applied at an aerodrome for the purpose of ensuring safe operations during lower than Standard Category I, other than Standard Category II, Category II and III approaches and low visibility take-offs.**~~procedures applied at an aerodrome for the purpose of ensuring safe operations during low visibility conditions, for which a specific approval is required.;~~	IND: request to align with EU-OPS 1.435 definition;	The text has been amended accordingly.

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A: Rule	B: Summary of comments	C: Reason for change, remarks
~~(47)~~'Low **v**~~V~~isibility **t**~~T~~ake-**o**~~O~~ff (LVTO)' ~~shall~~ mean**s** a take-off ~~where the~~**with a r**~~R~~unway **v**~~V~~isual **r**~~R~~ange (RVR) ~~is less~~ **lower** than 400 m **but not less than 75 m.**~~;~~	IA: request to add for clarity: " (RVR)**,** *measured for the respective runway,* is …"; 	The text remains aligned with EU-OPS 1.435. Further changes made following input from the CAT review group, to align with SPA.LVO.
'Lower than Standard Category I (LTS CAT I) operation' **means a Category I instrument approach and landing operation using Category I decision height, with an RVR lower than would normally be associated with the applicable DH but not lower than 400 m.**	IA: request to transfer the definition from GM to IR;	The definition has been transferred from GM1 OPS.SPA.001.LVO accordingly. Further edited following feedback on SPA.LVO by the CAT review group.
~~(48)~~'Maximum passenger seating configuration **(MPSC)**' means the maximum passenger seating capacity of an individual aircraft ~~established for operational purposes,~~ excluding crew seats ~~. This may be lower than the maximum certificated passenger seating configuration of the aircraft~~**as established during the certification process**.	1. MS, IND: request to move the last sentence to AMC, and as the term is not 'approved', to have an additional GM covering how the configuration is to be achieved; 2. IND: request to realign with EU-OPS and use maximum *approved* passenger seating configuration;	1.& 2. The definition has been amended to clarify that this capacity is established during the certification process. 'Approved' is not used in this term, as it also applies to non-commercial operations, for which such an approval is not required.
'Medical passenger' means a medical person carried in a helicopter during a HEMS flight, including but not limited to doctors, nurses and paramedics.	MS: request to add a definition for medical passenger;	The definition has been added as the term is used in SPA.HEMS.

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~~(49)~~ 'Night' means the period between ~~30 minutes after~~**the end of evening civil twilight and the beginning of morning civil twilight or such other period between** sunset ~~until 30 minutes before~~**and** sunrise~~, determined at surface level.~~ **as may be prescribed by the appropriate authority, as defined by the Member State.**	1. MS, Eurocontrol, IND (General Aviation), INDIV: request to align the definition with ICAO, and provide AMC and GM to ensure the definition is accurate under all latitudes; 2. MS: request to align with NPA 2008-17 and enable the appropriate authority to define when it starts and ends; 3. MS: request to allow MS to define night. In Sweden the critical factor is when a prominent unlit object (house) cannot be clearly distinguished at a range of more than 8 000 m;	1-3: The definition has been changed to align with that in Part-FCL. This enables the appropriate authority to determine when night begins and ends.
~~(50)~~'Night **v~~V~~**ision **g~~G~~**oggles (NVG)' ~~shall~~ mean**s** a head-mounted, binocular, light intensification appliance that enhances the ability to maintain visual surface references at night**.**~~;~~	IND, INDIV: request to change to '… a ***helmet***-mounted…';	The text remains unchanged, as NVG can also be used without a helmet.
~~(51)~~'Night **v~~V~~**ision **i~~I~~**maging **s~~S~~**ystem (NVIS)' ~~shall~~ mean**s** the integration of all elements required to successfully and safely use NVGs while operating a helicopter. The system includes as a minimum: NVGs, NVIS lighting, helicopter components (such as radio altimeter, visual warning system and audio warning system), training and continuing airworthiness**.**~~;~~	1. IND, IA: request to align system requirements with OPS.SPA.NVIS and delete the second sentence; 2. FAA: request to re-draft the definition to address all aircraft;	1. The definitions for terms used in the Implementing Rules have been collected in this Annex. The second sentence is needed to highlight that the whole system is addressed, not only night vision goggles as is a common misunderstanding. 2. The term is used only in the

A: Rule	B: Summary of comments	C: Reason for change, remarks
		Implementing Rules for helicopters, and therefore the definition is limited to helicopters. There should be a future rulemaking task addressing the use of NVIS in other-than CAT helicopter operations.
'Night vision imaging system (NVIS) crew member' means a technical crew member assigned to an NVIS flight.		Editorial decision to add the definition as the term is used in SPA.NVIS. It is based on the definition provided in TGL 34.
~~(52)~~'Non-hostile environment' means an environment in which: (~~i~~**a**) **a**~~A~~ safe forced landing can be accomplished; (~~ii~~**b**) **t**~~T~~he helicopter occupants can be protected from the elements; **and** (~~iii~~**c**) **s**~~S~~earch and rescue response/capability is provided consistent with the anticipated exposure**.**~~; and~~ ~~(iv)~~ **In any case,** those parts of a congested area with adequate safe forced landing areas shall be considered non-hostile.	IND: request clarity as to who has the final responsibility for defining hostile/non-hostile areas;	The Agency does not consider that it is appropriate to define this responsibility, as it is dependent on many factors. It therefore needs to be assessed within the operational circumstances of a particular flight. Minor changes made to realign fully with JAR-OPS 3.
~~(53)~~'**Night vision imaging system (**NVIS**)f**~~F~~light' ~~shall~~ mean**s** a flight under night **visual meteorological conditions (**VMC**)** with the flight crew using NVGs in a helicopter operating under an NVIS approval**.**~~;~~	IND: request a definition of flight crew be added;	A definition for 'flight crew member' is given in the Cover Regulation to Part-OR.

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'Non-precision approach (NPA) operation' means an instrument approach with a minimum descent height (MDH),or DH when not flying a CDFA technique, not lower than 250 ft and an RVR/CMV of not less than 750 m for aeroplanes and 600 m for helicopters.		Editorial decision to transfer the definition from AMC4 OPS.GEN.150, and align with EU-OPS, as the term is used in SPA.LVO. In contrast with EU-OPS, the option for alternate values for MDH/DH and RVR/CMV to be approved by the competent authority is not included. In addition, an RVR/CMV for helicopter operations has been added.
~~(54)~~'Offshore operations' means operations which routinely have a substantial proportion of the flight conducted over sea areas to or from offshore locations. Such operations include, but are not limited to, support of offshore oil, gas and mineral exploitation and sea-pilot transfer.	1. INDIV: request to add "… *more than 10 minutes' flight time at normal cruise speed overwater from the next shoreline*"; 2. MS: request to amend the definition to "*commercial helicopter operations*" only and add that they "*require a specific approval*";	1, 2 The proposals are not considered appropriate. The text remains aligned with that in ICAO.
~~(55)~~'Operating site' means a site**, other than an aerodrome,** selected by the operator or pilot-in-command **or commander** for landing, take-off and/or **external load operations**~~hoist operations~~.	IND: request to add "*external load*" operations and consider deleting HHO site;	The Agency agrees with the suggestion, and has amended the text accordingly.
~~(56)~~'**Operations~~s~~ in p**~~P~~erformance **c**~~C~~lass 1' means **an operation** that, in the event of failure of the critical ~~power unit~~**engine**, the helicopter is able to land within the rejected	MS, Eurocontrol, INDIV: request to align the definition with ICAO;	The Agency considers the JAR-OPS definition to be the most appropriate one.

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take-off distance available or safely continue the flight to an appropriate landing area, depending on when the failure occurs.		
~~(57)~~'**Operations~~s~~ in p~~P~~**erformance **c~~C~~**lass 2' means **an operation** that, in the event of failure of the critical ~~power unit~~**engine**, performance is available to enable the helicopter to safely continue the flight, except when the failure occurs early during the take-off manoeuvre or late in the landing manoeuvre, in which cases a forced landing may be required.	MS, Eurocontrol, INDIV: request to align the definition with ICAO;	The Agency considers the JAR-OPS definition to be the most appropriate one.
~~(58)~~'**Operations~~s~~ in p~~P~~**erformance **c~~C~~**lass 3' means **an operation** that, in the event of **an engine**~~a power unit~~ failure at any time during the flight, a forced landing may be required in a multi-engined helicopter and will be required in a single-engine~~d~~ helicopter.	MS, Eurocontrol, INDIV: request to align the definition with ICAO;	The Agency considers the JAR-OPS definition to be the most appropriate one.
'Other than Standard Category II (OTS CAT II) operation' means a precision instrument approach and landing operation using ILS or MLS where some or all of the elements of the precision approach category II light system are not available, and with: **(a) DH below 200 ft but not lower than 100 ft; and** **(b) RVR of not less than 350 m.**	IA: request to add the definition to IR;	The definition has been transferred from Appendix 2 to AMC1 OPS.SPA.020.LVO accordingly, and further edited to align with that given in Appendix 1 to EU-OPS 1.430.
'Performance class A aeroplanes' means multi-engined aeroplanes powered by turbo-propeller engines with a maximum passenger seating	MS, IND: request to move definitions for Performance Class from AMC to	The definition has been moved (from AMC OPS.CAT.316.A(a)(1)), in accordance with comments and as the

A: Rule	B: Summary of comments	C: Reason for change, remarks
configuration of more than nine or a maximum take-off mass exceeding 5 700 kg, and all multi-engined turbo-jet powered aeroplanes.	IR;	term is used in Implementing Rules.
'Performance class B aeroplanes' means aeroplanes powered by propeller engines with a maximum passenger seating configuration of nine or less and a maximum take-off mass of 5 700 kg or less.	1. MS, IND: request to move definitions for performance class from AMC to IR; 2. INDIV: request to add single-engine turbojet aeroplanes to Performance Class B.	1. The definition has been moved (from AMC OPS.CAT.316.A(a)(1)), in accordance with comments and as the term is used in Implementing Rules. 2. Single turbojet powered aeroplanes (very light jets) are beyond the scope of this NPA, and will be covered by a separate rulemaking task.
'Performance class C aeroplanes' means aeroplanes powered by reciprocating engines with a maximum passenger seating configuration of more than nine or a maximum take-off mass exceeding 5 700 kg.	MS, IND: request to move definitions for Performance Class from AMC to IR;	The definitions have been moved (from AMC OPS.CAT.316.A(a)(1)), in accordance with comments and as the term is used in Implementing Rules.
'Pilot-in-command (PiC)' means the pilot designated as being in command and charged with the safe conduct of the flight. For the purpose of commercial air transport operations, the 'pilot-in-command' shall be termed the 'commander'.		The definition aligns with that in Part-FCL. It is also clarified that, for CAT operations, the 'pilot-in-command' is the 'commander'.
~~(59)~~**8** 'Powered sailplane' means an aircraft, equipped with one or more engines having, with engine(s) inoperative, the characteristics of a sailplane.	1. IA: request to use the term Touring Motor Glider and align with the definition in JAR FCL 3.001; 2. IND (General Aviation): request clarification if a TMG is to be	1, 2. The definition remains aligned with that in Part-FCL. TMGs are separately defined below, and are considered as a specific class of powered sailplane.

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	considered a sailplane or aeroplane;	
~~(60) 'Principal place of business' means the head office or registered office of a Community operator in the Member State within which the principal financial functions and operational control, including continued airworthiness management, of the Community operator are exercised.~~	1. IND: request clarification for those companies where the principal financial functions are in one country, but the CAMO/CAM in another; 2. MS: the definition is not compliant with that given in OR.GEN.001b;	1, 2. The definition for 'principal place of business' is given in the Cover Regulation to Part-OR, and is not repeated here. These issues are covered in the comment responses to Part-OR.
~~(61)~~'Public **i**~~I~~nterest **s**~~S~~ite' means a site~~,~~ used exclusively for operations in the public interest**.**~~;~~	IND: request definition of 'public interest';	Please consult GM1-CAT.POL.H.225 for further information on public interest sites.
'Rejected take-off distance available (RTODAH)' means the length of the final approach and take-off area declared available and suitable for helicopters operated in performance class 1 to complete a rejected take-off.		Editorial decision to transfer this definition from AMC1 OPS.CAT.010 Definitions to Annex I, as the term is used in Implementing Rules.
'Rejected take-off distance required (RTODRH)' means the horizontal distance required from the start of the take-off to the point where the helicopter comes to a full stop following an engine failure and rejection of the take-off at the take-off decision point.		Editorial decision to transfer this definition from AMC1 OPS.CAT.010 Definitions to Annex I, as the term is used in Implementing Rules. Minor edit made to be consistent with helicopter rules.
~~(62)~~'Runway visual range (RVR)' means the range over which the pilot of an aircraft on the centre line of a runway	IA: request clarification that this is a meteorological measurement	The definition aligns with ICAO Annex 6, Part I.

A: Rule	B: Summary of comments	C: Reason for change, remarks
can see the runway surface markings or the lights delineating the runway or identifying its centre line.	procedure, a 'pilot's assessment' of the actual visibility;	
~~(63)~~'Safe forced landing' means an unavoidable landing or ditching with a reasonable expectancy of no injuries to persons in the aircraft or on the surface.		
~~(64)~~'Seaplane' means a fixed wing aircraft which is designed for taking off and landing on water and includes amphibians operated as seaplanes.	Eurocontrol: request to align the definition with ICAO;	The definition remains unchanged, and is aligned with the note to ICAO Annex 6, Part I, 6.5.1.
~~(65) 'Series of flights' means consecutive flights, which begin and end:~~ ~~(i) within a 24 hours period;~~ ~~(ii) at the same aerodrome/operating site; and~~ ~~(iii) with the same pilot-in-command of the aircraft.~~	1. MS, Eurocontrol: Request to align the definition with ICAO; 2. MS, IND: request clarification as this definition is not compatible with the term's usage in the NPA; 3. IND: request clear statement that this definition applies only to helicopter operations;	1, 2 The definition has been deleted and the use of this term checked across the Parts. 3. The definition was intended to apply to all relevant operations on any aircraft.
~~(66)~~ 'Sailplane' means a heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its fixed lifting surfaces, the free flight of which does not depend on an engine**.**	1. INDIV: request to clarify if powered sailplanes (self-launching and self-sustaining sailplanes) are covered by this definition; 2. IA: alternate definition proposed;	1., 2. The definition remains aligned with that in Part-FCL. Powered sailplanes are a subcategory of sailplane, and their definition remains aligned with that in Part-FCL.
~~(67) 'Screen height' means a height selected by the (Supplemental) Type certificate holder at 50 ft, or another~~	1. MS, IND: screen height is not covered by the TC/STC proposal;	1-3 As this term is adequately described in the Implementing Rules,

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~~value from 35 to 50 ft.~~	2. IND: request for clarification as the term is not commonly used; 3. IA: request to clarify that the value depends on the runway condition (dry/wet) in case of engine out; 4. IND (Business Aviation): request to align with airworthiness certification requirements (JAA NPA 25B-267) to use a screen height maximum of 60 ft;	its definition has been deleted from here. 4. The proposed change has been accepted, and the screen height maximum has been changed to 60 ft in the Implementing Rules in Part-CAT, CAT.POL.
~~(68)~~ 'Special VFR flight' means a VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC.	1. IND (General Aviation): request to clarify VMC; 2. IND (Business Aviation): request for clarity to add "… *as required for the airspace class*"; 3. IND (General Aviation): request to add "… *or in circumstances where VFR flight is not normally permitted*";	1-3. The definition is aligned with that in Part-SERA (which in turn is aligned with ICAO Annex 2). In order to maintain this alignment, the definition has not been amended.
~~(69)~~'~~Standard~~ Category I **(CAT I) approach operation**' means a precision instrument approach and landing using **an instrument landing system (**ILS**)**, **microwave landing system (**MLS**), ground-based augmentation (GBAS) landing system (GLS)** or **precision approach radar (**PAR**)** with a decision height **(DH)** not lower than 200 ft and with a runway visual range (RVR) not less than	1. Eurocontrol: request to align the definition with ICAO; 2. MS: request to amend to "… ILS, MLS, ***GLS*** or PAR …"; 3. FAA ; request to add GPS/GNSS approaches that have the same height	1. The definition is aligned with EU-OPS, though does not contain the option for alternate decision heights approved by the competent authority within the definition itself. 2. The text has been amended accordingly.

A: Rule	B: Summary of comments	C: Reason for change, remarks
550 m for aeroplanes and 500 m for helicopters.	and visibility minima as defined; 4. MS: request to add definitions for Category II and III operations;	3. GBAS approaches have been added. 4. The definitions for Standard Category II, Standard Category III, lower than Standard Category I and other than Standard Category II have been added, and are aligned with EU-OPS.
'Separate runways' means runways at the same aerodrome that are separate landing surfaces. These runways may overlay or cross in such a way that if one of the runways is blocked, it will not prevent the planned type of operations on the other runway. Each runway shall have a separate approach procedure based on a separate navigation aid.	IA: request to add a definition for 'separate runways';	The definition has been added, in accordance with comments and as the term is used in Implementing Rules.
'Stabilised approach (SAp)' means an approach which is flown in a controlled and appropriate manner in terms of configuration, energy and control of the flight path from a pre-determined point or altitude/height down to a point 50 ft above the threshold or the point where the flare manoeuvre is initiated if higher.		The definition has been moved from GM OPS.GEN.010, as it is used in the Implementing Rules covering LVO.
~~(70)~~'Take-off alternate **aerodrome**' means an alternate aerodrome at which an aircraft can land should this become necessary shortly after take-off and **if** it is not possible to	IA: request to change "shortly" with an unambiguous flight time;	The definition is aligned with ICAO Annex 6, Part I, and remains

A: Rule	B: Summary of comments	C: Reason for change, remarks
use the aerodrome of departure.		unchanged.
'Take-off decision point (TDP)' means the point used in determining take-off performance from which, an engine failure having been recognised at this point, either a rejected take-off may be made or a take-off safely continued.		Editorial decision to transfer this definition from AMC1 OPS.CAT.010 Definitions to Annex I, as the term is used in Implementing Rules. Minor edit made to be consistent with helicopter rules.
~~(71)~~'Take-off distance available (TODA)' means the length of the take-off run available plus the length of the clearway ~~available~~**, if provided**.	Eurocontrol: request to align the definition with ICAO;	The text has been amended accordingly.
'Take-off distance available (TODAH)' means the length of the final approach and take-off area plus, if provided, the length of helicopter clearway declared available and suitable for helicopters to complete the take-off.	IND: request to place this definition in OPS.GEN.010 as the term is used in OPS.CAT.365.H;	Agreed. This definition has been transferred from AMC1 OPS.CAT.010 Definitions to Annex I, as the term is used in Implementing Rules.
~~(72)~~ 'Take-off run available (TORA)' means the length of runway which is declared available by the ~~competent authority~~**State of the aerodrome** and suitable for the ground run of an aeroplane taking off.		
~~(73)~~'Take-off distance required helicopters (TODRH)' means the horizontal distance required from the start of the take-off to the point at which **t**~~T~~ake-off safety speed (V_{TOSS}), a selected height and a positive climb gradient are achieved, following failure of the critical ~~power unit~~**engine** being		Editorial changes in line with those made in the helicopter rules, and GM1 OPS.GEN.010(73).

A: Rule	B: Summary of comments	C: Reason for change, remarks
recognised at TDP, the remaining ~~power units~~**engines operating** within approved operating limits.		
~~(74)~~'Take-off mass' means the mass~~,~~ including everything and everyone carried at the commencement of the take-off for helicopters and take-off run for aeroplanes.		
~~(75)~~'Take-off flight path' means the vertical and horizontal path, with the critical ~~power-unit~~**engine** inoperative, from a specified point in the take-off**, for aeroplanes to 1 500 ft above the surface and for helicopters** to 1 000 ft above the surface.	1. IND: request for consistency in the use of 'engine' (for aeroplanes) and 'power-unit' (for helicopters); 2. IND, FAA: request a definition of 'critical power-unit/engine'; 3. IND: request clarification as to where the figure of 1 000 ft originates; 4. IND (Business Aviation): request to align with CS 25 definition of 'net take-off flight path' up to 1 500 ft;	1. 'Power unit' has been replaced with 'engine' for both aeroplanes and helicopters, for consistency. 2. 'Critical engine' is defined in CS-Definitions and not repeated here. 3. The figure of 1 000 ft comes from ICAO Annex 6, Part III, and is now identified as a helicopter requirement. 4. The text has been amended accordingly, and is aligned with CS-25, 25.111.
'Technical crew member' means a crew member in commercial air transport HEMS, HHO or NVIS operations other than a flight or cabin crew member, assigned by the operator to duties in the aircraft or on the ground for the purpose of assisting the pilot during HEMS, HHO or NVIS operations, which may require the operation of specialised on-board equipment.		Definition transferred from OR.OPS.005.TC, following stakeholder comments to NPA 2009-02c. The definition will be moved to the Cover Regulation for Part-OR, though an editorial error meant that the term did not appear in the CRD to Part-OR. In order to provide an opportunity for stakeholders to react, it has been

A: Rule	B: Summary of comments	C: Reason for change, remarks
		included in this CRD.
'Technical Instructions (TI)' means the latest effective edition of the *Technical Instructions for the Safe Transport of Dangerous Goods by Air*, including the Supplement and any Addenda, approved and published by the International Civil Aviation Organisation.	MS: request to add a definition for TI;	The definition, aligned with that given in EU-OPS, has been added (with minor edits, including placing the ICAO document number in GM to this definition).
'Touring motor glider (TMG)' means a specific class of powered sailplane having an integrally mounted, non-retractable engine and a non-retractable propeller. It shall be capable of taking off and climbing under its own power according to its flight manual.	IA: request to have a definition for TMG;	The definition has been added, aligned with that in Part-FCL, FCL.010.
~~(76)~~'Traffic load' means the total mass of passengers, ~~persons other than crew members,~~ baggage, cargo and carry-on specialist equipment, including any ballast.		Editorial decision to delete the phrase, as this Regulation covers only crew members and passengers.
'Unaided NVIS flight' means, in the case of NVIS operations, that portion of a visual flight rules (VFR) flight performed at night when a crew member is not using NVG.		Definition added following amendments and comments from Review Group members to SPA.NVIS. (which is based on JAA TGL 34).
~~(77)~~'V_1' means the maximum speed in the take-off at which the pilot must take the first action ~~(e.g. apply brakes, reduce thrust, deploy speed brakes)~~ to stop the aeroplane within the accelerate-stop distance. V_1 also means the minimum speed in the take-off, following a failure of the	MS: the definition is wrong – request to align with CS;	The Agency considers the definition to be correct and it remains substantially unchanged. It also follows that used in the FAA's definitions and abbreviations contained in *Title*

A: Rule	B: Summary of comments	C: Reason for change, remarks
critical engine at V_{EF}, at which the pilot can continue the take-off and achieve the required height above the take-off surface within the take-off distance.		*14:Aeronautics and Space*. The list of possible actions has been transferred as GM to this definition as it is not exhaustive.
(78)'V_{EF}' means the speed at which the critical engine is assumed to fail during take-off.		
'Visual approach' means an approach when either part or all of an instrument approach procedure is not completed and the approach is executed with visual reference to the terrain.		The definition has been moved from GM OPS.GEN.010 to Annex I, as it is used in Implementing Rules for LVO. Minor edit to align with EU-OPS.
~~(79)~~'Wet runway' means a runway of which the surface is covered with water, or equivalent, less than specified by the 'contaminated runway' definition or when there is sufficient moisture on the runway surface to cause it to appear reflective, but without significant areas of standing water.	1. MS: request to align with ICAO; 2. FAA: safety case to delete "or when there is sufficient moisture on the runway surface to cause it to appear reflective";	The definition is in alignment with EU-OPS and remains unchanged for the moment. A future rulemaking task would consider amending the definitions for runway surface conditions, including consideration of the ICAO Annex 6, Part I definition of the 'runway surface condition' in Amendment 33.
~~**Subpart B - Commercial Air Transport**~~		
~~**Section I - General Requirements**~~		

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~**OPS.CAT.001 Scope**~~		
~~This subpart establishes additional and specific requirements to be met by an operator undertaking commercial air transport operations, to ensure compliance with Annex IV to Regulation (EC) No 216/2008 (Essential requirements for air operations)~~		Replaced with the Cover Regulation.
~~**Subpart C - Commercial operations other than Commercial Air Transport**~~		
~~**Section I - General Requirements**~~		
~~**OPS.COM.005 Scope**~~		
~~This subpart establishes additional and specific requirements to be met by an operator undertaking commercial operations other than Commercial Air Transport, to ensure compliance with Annex IV to Regulation (EC) No 216/2008 (Essential requirements for air operations).~~		Replaced with the Cover Regulation.

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~**Subpart D - Operations requiring specific approvals**~~		
~~**Section I - General Requirements**~~		
~~**OPS.SPA.001.GEN Competent authority**~~		
~~Notwithstanding OPS.GEN.005, for the purpose of this Subpart, the competent authority for non-commercial operators conducting operations in PBN/MNPS and RVSM airspace shall be the State of registry.~~		Replaced with the Cover Regulation.
~~**OPS.SPA.005.GEN Scope**~~		
~~This part establishes the requirements to be met by an operator to qualify for the issue or continuation of specific operational approvals.~~		Replaced with the Cover Regulation.
~~**Subpart A - General operating and flight rules**~~**AMC Definitions**		
~~**Section I - General Requirements**~~		
~~**GM OPS.GEN.005(a) Scope**~~		

Annex I – Definitions | CRST

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~**GENERAL**~~		
~~The requirements are meant to be followed by the operator as defined in the Basic Regulation (Regulation (EC) No 216/2008). Therefore, the operator, whether the pilot/owner or an organisation, is considered to be responsible for taking those measures, unless the Implementing Rules specifically address measures to the pilot-in-command.~~		
~~**GM OPS.GEN.010 Definitions**~~**AMC1-DEF.100 Definitions for terms used in Annexes II - VI**		This paragraph has been merged with AMC1-OPS.CAT.010 and renamed as AMC**1-** DEF.100 Definitions.
DEFINITIONS USED IN ACCEPTABLE MEANS OF COMPLIANCE AND GUIDANCE MATERIAL For the purpose of ~~this Subpart~~**Acceptable Means of Compliance and Guidance Material to Regulation xxx/xxxx [air operations]**, the following definitions ~~are used~~**should apply**:	MS, IND, INDIV: request to upgrade definitions to IR and place them in a common part;	As the definitions are to apply not only to Part-CAT, but also to Part-NCC, Part-NCO, Part-SPO and Part-SPA, some aspects of the definitions need to be covered by AMC/GM, in order to address proportionality issues.
~~1. 'Circling' means the visual phase of an instrument approach to bring an aircraft into position for landing on a runway/FATO which is not suitably located for a straight-in approach.~~	IA: request to upgrade the definition to IR in OPS.GEN.010;	The definition has been moved to Annex I as it is used in Implementing Rules.
~~2. 'Continuous descent final approach (CDFA)' means a specific technique for flying the final approach segment~~	IA: request to upgrade the definition to IR in OPS.GEN.010;	The definition has been added to Annex I, as it is used in

Annex I – Definitions | CRST

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~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 15m (50ft) above the landing runway threshold or the point where the flare manoeuvre should begin for the type of aeroplane flown.~~		CAT.OP.AH.115.
~~3. 'Converted Meteorological Visibility (CMV)' means a value (equivalent to an RVR) which is derived from the reported meteorological visibility, as converted in accordance with the requirements in this subpart.~~		The definition has been moved to Annex I, as it is used in the Implementing Rules for SPA.LVO.
~~4. 'GNSS Landing System (GLS)' means an approach operation using augmented GNSS information to provide guidance to the aircraft based on its lateral and vertical GNSS position. (It uses geometric altitude reference for its final approach slope.)~~	IND (General Aviation): request a definition of 'geometric altitude';	The definition has been moved to Annex I, as it is used in Part-SPA. A definition for geometric altitude is not provided here as a standard dictionary definition is appropriate.
~~5. 'Maximum take-off mass for helicopters' means the maximum permissible total helicopter mass at take-off.~~	MS: request to combine with 'Take-off mass' in OPS.GEN.010 and delete this specific definition;	The definition here has been deleted accordingly.
~~6~~**16.** 'Overpack'**, for the purpose of transporting dangerous goods,** means an enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage.		Minor edit.

Annex I – Definitions | CRST

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~7~~**17.** 'Package'**, for the purpose of transporting dangerous goods,** means the complete product of the packing operation consisting of the packaging and its contents prepared for transport.		Minor edit.
~~8~~**18.** 'Packaging'**, for the purpose of transporting dangerous goods,** means receptacles and any other components or materials necessary for the receptacle to perform its containment function.	IND: request to align definition with ICAO Doc 9284;	The text remains unchanged as it aligns with the EU-OPS and ICAO definitions.
~~9. 'Stabilised Approach (SAp)' means an approach which is flown in a controlled and appropriate manner in terms of configuration, energy and control of the flight path from a pre-determined point or altitude/height down to a point 50 feet above the threshold or the point where the flare manoeuvre is initiated if higher.~~	1. Eurocontrol: request to align with common definitions of this term to "*a continuous descent with a rate of descent adjusted to achieve a constant descent gradient*"; 2. MS: request clarification of "appropriate manner";	1. The text remains unchanged as it is aligned with EU-OPS. It has, however, been moved to Annex I, as this term is used in Implementing Rules. 2. The definition states that the appropriate manner relates to flight in a controlled manner in terms of configuration etc.
~~10. 'Visual approach' means an approach by an IFR flight when either part or all of an instrument approach procedure is not completed and the approach is executed with visual reference to the terrain.~~	IA: request to upgrade the definition to IR in OPS.GEN.010;	The definition is used in the Implementing Rules for SPA.LVO, and has been moved as requested.
~~**AMC OPS.GEN.010(a)(9)&(10) Definitions**~~		
~~CATEGORY A AND CATEGORY B~~		Transferred to AMC1-CAT.POL.H.200&300&400(a).

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~1. Helicopters which have been certificated according to any of the following standards are considered to satisfy the Category A criteria. Provided that they have the necessary performance information scheduled in the **aircraft f**Flight **m**Manual, such helicopters are therefore eligible for performance class 1 or 2 operations:~~ ~~a. Certification as Category A under CS-27 or CS-29;~~ ~~b. Certification as Category A under JAR-27 or JAR-29;~~ ~~c. Certification as Category A under FAR Part 29;~~ ~~d. Certification as **g**Group A under BCAR Section G;~~ ~~e. Certification as **g**Group A under BCAR-29**.**;~~	1. INDIV: request an alleviation for HEMS operations outside congested hostile areas, and depending on the operation, to permit helicopters that do not fulfil the single engine performance requirements but whose type-certification data sheet proved full compliance with Category A; 2. IND: request deadline of 2015 be given to no longer permit operation of helicopters not fully meeting Category A certification standards in Performance Class 1 or 2 operations;	1. The intent is that a technical safety level is met and that performance data are available such that compliance with PC1 and PC2 can be assured. The intent is not to permit complete alleviation from all performance requirements. 2. The Agency does not currently want to set a deadline for fleet renewal when the performance objective can be met by equivalent means. 3. Editorial changes made in line with the OPS Parts.
~~2. In addition to the above, certain helicopters have been certificated under FAR Part 27 and with compliance with FAR Part 29 engine isolation requirements as specified in FAA Advisory Circular AC 27-1. These helicopters may be accepted as eligible for **p**Performance **c**Class 1 or 2 operations provided that compliance is established with the following additional requirements of CS-29:~~ ~~**a.** CS 29.1027(a) Independence of engine and rotor drive system lubrication.~~	1. MS, IND: request to amend or delete 2. as non-category A certificated helicopters were granted alleviations under JAR-OPS 3 until manufacturers would be able to serve the need with certified helicopters. This alleviation should not be granted; 2. IND (2): request to amend the text to ' … These helicopters *may be considered to satisfy the Category A criteria and therefore* may be	1. This is a grandfathering requirement for those earlier certificated helicopters where they can continue operations if they meet the additional CS-29 requirements. It is inappropriate to remove this subparagraph as that would remove the possibility for those older aircraft to continue operations. 2. The equivalence is only a one-time determination and should be

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~**b.** CS 29.1187(c)~~ ~~**c.** CS 29.1195(a) & (b) Provision of a one-shot fire extinguishing system for each engine.~~ ~~**d.** CS 29.1197~~ ~~**e.** CS 29.1199~~ ~~**f.** CS 29.1201~~ ~~**g.** CS 29.1323(c)(1) Ability of the airspeed indicator to consistently identify the take-off decision point.~~	accepted as eligible for…'; 3. IND, INDIV: request to delete all of 2. as the AMC is not compliant with OPS.CAT.355.H;	commonly interpreted within Europe, to ensure a level playing field. The problem lies in the performance of such helicopters rather than the certification basis whether it can meet the requirements or not. Therefore the latter is an operational issue to be determined by the operational competent authority, hence the use of 'eligible for PC 1 or 2'. 3. Cat. A is defined in Annex I to this Regulation and refers to 'an equivalent standard'. This equivalent is defined in the AMC and therefore the AMC is in line with the regulation.
~~* The requirement to fit a fire extinguishing system may be waived if the helicopter manufacturer can demonstrate equivalent safety, based on service experience for the entire fleet showing that the actual incidence of fires in the engine fire zones has been negligible.~~		
~~3. Any helicopters certificated in accordance with to the following standards is considered to satisfy the Category B criteria.~~ ~~a. JAR-27;~~ ~~b. Category B under JAR-29;~~	IND: request, for those helicopters certificated under FAR Part 27 and in compliance with FAR Part 29 and considered to satisfy Category A criteria, that these helicopters be eligible for performance class 1 and 2	The list has been deleted from the resulting text, as it could preclude certain helicopters currently operating in performance class 3 in Europe from continuing such operations.

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~c. FAR Part 27;~~ ~~d. Category B under FAR Part 29;~~ ~~e. BCAR Section G; and~~ ~~f. group B under BCAR 29.~~	operations (further details in FAA Advisory Circular AC 27-1). Align with OPS.CAT.355.H;	
~~If appropriately equipped, such helicopters are therefore eligible for performance class 3 operations.~~		
~~**GM OPS.GEN.010(a)(9)&(10) Definitions**~~		Transferred to Part-CAT, GM1-CAT.POL.H.200& 300&400(a).
~~CATEGORY A AND CATEGORY B~~		
~~The performance operating rules of JAR-OPS 3, which were transposed into the **I**implementing Rules, were drafted in conjunction with the performance requirements of JAR-29 Issue 1 and FAR Part 29 at Amendment 29-39. For helicopters certificated under FAR Part 29 at an earlier amendment, or under BCAR **s**Section G or BCAR-29, performance data will have been scheduled in the Helicopter **aircraftf**Flight **m**Manual according to these earlier requirements. This earlier scheduled data may not be fully compatible with these rules. Before performance class 1 or 2 operations are approved, it should be established that scheduled performance data is available which is compatible with the requirements of performance class 1 and 2 respectively.~~		

A: Rule	B: Summary of comments	C: Reason for change, remarks
GM1-Annex I ~~– OPS.GEN.010(a)(30)~~Definitions for terms used in Annexes II - VI		
HELICOPTER EMERGENCY MEDICAL SERVICES (HEMS) FLIGHT		
1. A HEMS flight (or more commonly referred to as HEMS mission) normally starts and ends at the HEMS **o~~O~~**perating **b~~B~~**ase following tasking by the 'HEMS **d~~D~~**ispatch **c~~C~~**entre'. Tasking can also occur when airborne, or on the ground at locations other than the HEMS **o~~O~~**perating **b~~B~~**ase.	IND: request to align definition with (30) in OPS.GEN.010;	As this Guidance Material is taken from JAR-OPS 3, it is aligned with the definition for HEMS flights. It is therefore not understood what the commenter requests.
2. ~~It is intended that the~~**The** following elements **should** be regarded as integral parts of the HEMS mission: a. **f~~F~~**lights to and from the HEMS **o~~O~~**perating **s~~S~~**ite when initiated by the HEMS **d~~D~~**ispatch **c~~C~~**entre; b. **f~~F~~**lights to and from an aerodrome/operating site for the delivery or pick-up of medical supplies and/or persons required for completion of the HEMS mission; **and** c. **f~~F~~**lights to and from an aerodrome/operating site for refuelling required for completion of the HEMS mission.		Editorial improvements made.
~~All these flights are subject to the applicable requirements~~		Deleted following the recommendation of the review group working on

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~and alleviations of this subpart.~~		SPA.HEMS.
GM2-Annex I Definitions for terms used in Annexes II - VI		
HEAD-UP GUIDANCE LANDING SYSTEM (HUDLS)		
A HUDLS is typically used for primary approach guidance to decision heights of 50 ft.		Editorial decision to transfer this item from the Annex 1 definition to GM.
GM3~~1~~-Annex I ~~OPS.GEN.010(a)(41)~~ Definitions for terms used in Annexes II - VI		
HOSTILE ENVIRONMENT		
Th~~ose~~ open sea areas considered to constitute a hostile environment should be designated by the appropriate authority in the appropriate Aeronautical Information Publication or other suitable documentation.		
GM4-Annex I Definitions for terms used in Annexes II - VI		
TECHNICAL INSTRUCTIONS		

A: Rule	B: Summary of comments	C: Reason for change, remarks
The ICAO document number for the Technical Instructions is Doc 9284.		
GM5-Annex I Definitions for terms used in Annexes II - VI		
V_1		
The first action includes for example: apply brakes, reduce thrust, deploy speed brakes.		Editorial decision to transfer the list of possible items from the definition in Annex I to GM, as it is not an exhaustive list.
~~**AMC OPS.GEN.010(a)(63) Definitions**~~		Transferred to Part-CAT, GM1-CAT.POL.H.205(b)(4).
~~THE APPLICATION OF TODRH~~		
~~The selected height should be determined with the use of Helicopter **aircraftf**Flight **m**Manual data, and be at least 10.7 m (35 ft) above:~~		
~~1. the take-off surface; or~~		
~~2. as an alternative, a level **height**defined by the highest obstacle in the take-off distance required.~~	1. MS: For clarity, request to use “height” in place of “level”;	1. The text has been amended. 2. This AMC only applies to

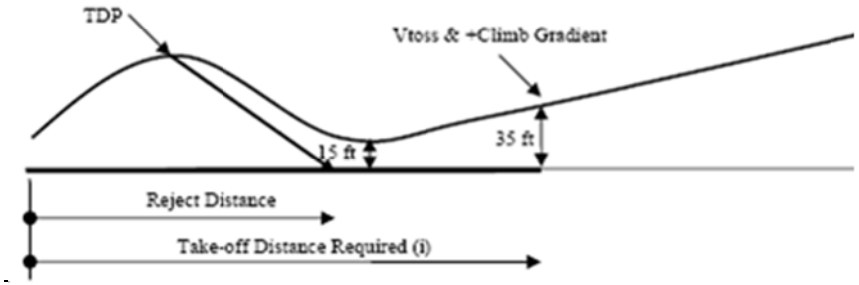
A: Rule	B: Summary of comments	C: Reason for change, remarks
	2. IND: this cannot be implemented for many helicopter landing sites, as such information about obstacles is not available;	performance class 1, and therefore to planned performance where such data must be available.
~~**GM OPS.GEN.010(a)(73) Definitions**~~		Based on feedback from review groups, this GM has been moved in its entirety to GM1-CAT.POL.H.205(b)(4).
~~THE APPLICATION OF TAKE-OFF DISTANCE REQUIRED HELICOPTERS (TODRH)~~		
~~*1. Discussion*~~		
~~Original definitions for helicopter performance were derived from aeroplanes; hence the definition of take-off distance owes much to operations from runways. Helicopters on the other hand can operate from runways, confined and restricted areas and rooftop FATO's - all bounded by obstacles. As an analogy this is equivalent to a take-off from a runway with obstacles on and surrounding it.~~	MS: request to include material for Performance Class 3 and single engine helicopters, covering the Helicopter Acceleration Area and Take-Off and Landing Distance To/From 100 ft;	As this material only applies to performance class 1, the proposal is therefore not considered.
~~It can therefore be seen that unless the original definitions from aeroplanes are tailored for helicopters, the flexibility of the helicopter might be constrained by the language of operational performance.~~		
~~This GM concentrates on the critical term - **t**Take-off **d**Distance **r**Required (TODRH) - and describes the methods~~		

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~to achieve compliance with it and, in particular, the alternative procedure described in ICAO Annex 6 Attachment A 4.1.1.2(b):~~		
~~a. The take-off distance required does not exceed the take-off distance available; or~~		
~~b. As an alternative, the take-off distance required may be disregarded provided that the helicopter with the critical power-unit~~**~~engine~~** ~~failure at the~~ **~~take-off decision point (~~**~~TDP~~**~~)~~** ~~can, when continuing the take-off, clear all obstacles between the end of the take-off distance available and the point at which it becomes established in a climb at V_{TOSS} by a vertical margin of 10.7 m (35 ft) or more. An obstacle is considered to be in the path of the helicopter if its distance from the nearest point on the surface below the intended line of flight does not exceed 30 m or 1.5 times the maximum dimension of the helicopter, whichever is greater.~~		Editorial amendment in line with helicopter rules, replacing 'power unit' with 'engine'.
~~*2. Definition of TODRH*~~	MS: request to move to OPS.GEN.010 as the term applies to more than CAT operations;	Please see the response under 2.a below.
~~The definition of TODRH from OPS.GEN.010(a)(73) is as follows:~~		

Annex I – Definitions | CRST

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~a. Take-off distance required (TODRH) means the horizontal distance required from the start of the take-off to the point at which V_{TOSS}, a selected height, and a positive climb gradient are achieved, following failure of the critical power-unit**engine** being recognised at TDP, the remaining power-unit**engine**(s) operating within approved operating limits. The selected height is to be determined with the use of Helicopter **aircraft f**Flight **m**Manual data, and is to be at least 10.7 m (35 ft) above:~~ ~~i. the take-off surface; or~~ ~~ii. as an alternative, a level **height**defined by the highest obstacle in the take-off distance required.~~	1. MS: for clarity, request to use "height" in place of "level"; 2. IND: this cannot be implemented for many helicopter landing sites, as such information about obstacles is not available;	1. The text has been amended accordingly. 2. This material only applies to performance class 1, and therefore to planned performance where such data must be available. 3. Change from 'power-unit' to 'engine', in line with helicopter rules.
~~The original definition of TODRH was based only on the first part of this definition.~~		
~~*3. The clear area procedure (runway)*~~		
~~In the past, helicopters certificated in **c**Category A would have had, at the least, a 'clear area' procedure. This procedure is analogous to an aeroplane **c**Category A procedure and assumes a runway (either metalled or grass) with a smooth surface suitable for an aeroplane take-off (see Figure 1).~~		

Annex I – Definitions | CRST

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~The helicopter is assumed to accelerate down the FATO (runway) outside of the HV diagram. If the helicopter has an engine failure before TDP, it must be able to land back on the FATO (runway) without damage to helicopter or passengers; if there is a failure at or after TDP the aircraft is permitted to lose height - providing it does not descend below a specified height above the surface (usually 15 ft if the TDP is above 15 ft). Errors by the pilot are taken into consideration but the smooth surface of the FATO limits serious damage if the error margin is eroded (e.g. by a change of wind conditions).~~		
Figure 1 - Clear Area take-off  		
~~The operator only has to establish that the distances required are within the distance available (take-off distance and reject distance). The original definition of TODRH meets this case exactly.~~		

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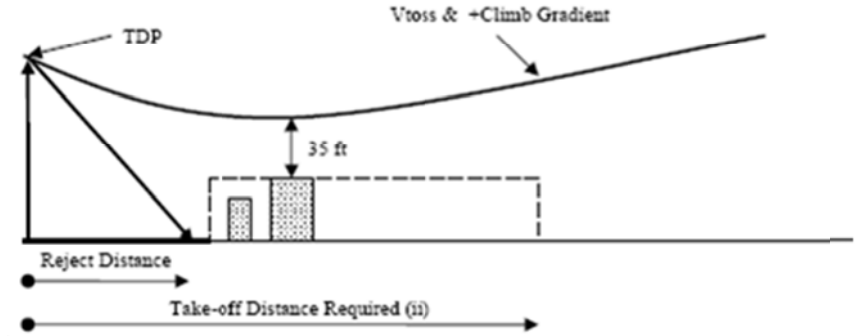
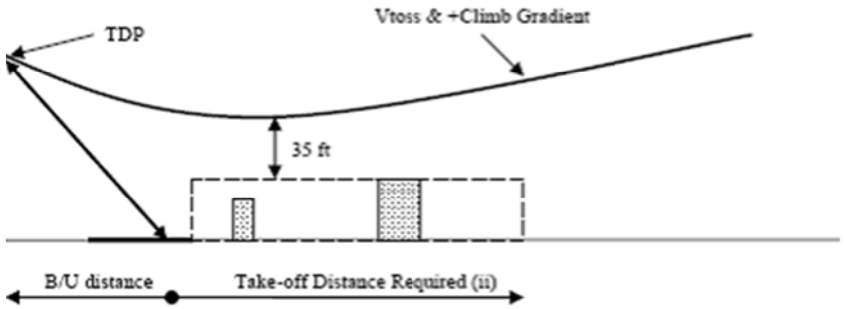
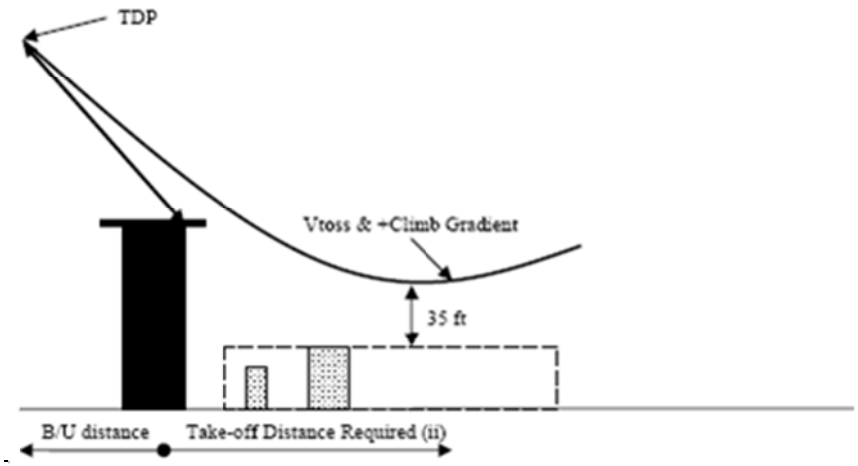
A: Rule	B: Summary of comments	C: Reason for change, remarks
~~From the end of the TODRH obstacle clearance is given by the climb gradient of the first or second climb segment meeting the requirement of AMC1 OPS.CAT.355.H (b) (or for performance class 2 – AMC3 OPS.CAT.355.H (b)). The clearance margin from obstacles in the take-off flight path takes account of the distance travelled from the end of the take-off distance required and operational conditions (IMC or VMC~~**~~instrument meteorological conditions or visual meteorological conditions~~**~~).~~		
~~*4. Category a procedures other than clear area*~~		
~~Procedures other than the clear area are treated somewhat differently. However, the short field procedure is somewhat of a hybrid as either part of the definition of TODRH can be utilised (the term 'helipad' is used in the following section to illustrate the principle only - it is not intended as a replacement for 'aerodrome').~~		
~~4.1~~**~~a.~~** ~~Limited area, restricted area and helipad procedures (other than elevated)~~		
~~The exact names of the procedure used for other than clear area are as many as there are manufacturers. However, principles for obstacle clearance are generic and the name is unimportant.~~		

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~These procedures (see Figure 2 and Figure 3) are usually associated with an obstacle in the continued take-off area - usually shown as a line of trees or some other natural obstacle. As clearance above such obstacles is not readily associated with an accelerative procedure, as described in 3 above, a procedure using a vertical climb (or a steep climb in the forward, sideways or rearward direction) is utilised.~~		
Figure 2 - Short Field take-off  		
~~With the added complication of a TDP principally defined by height together with obstacles in the continued take- off area, a drop down to within 15 ft of the take-off surface is not deemed appropriate and the required obstacle clearance is set to 35 ft (usually called min-dip). The distance to the obstacle does not need to be calculated (provided it is outside the rejected distance required), as clearance above all obstacles is provided by ensuring that helicopter does not descend below the min-dip associated with a level defined~~		

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~by the highest obstacle in the continued take-off area.~~		
Figure 3 - Helipad take-off  		
~~These procedures depend upon the alternative definition of TODRH.~~		
~~As shown in Figure 3, the point at which V_{TOSS} and a positive rate of climb are met defines the TODRH. Obstacle clearance from that point is assured by meeting the requirement of AMC1 OPS.CAT.355.H (b) (or for performance class 2 - AMC3 OPS.CAT.355.H (b)). Also shown in Figure 3 is the distance behind the helipad which is the back-up distance (B/U distance).~~		
~~4.2**b.** Elevated helipad procedures~~		
~~The elevated helipad procedure (see Figure 4) is a special~~		

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~case of the ground level helipad procedure discussed above.~~		
Figure 4 - Elevate Helipad take-off  		
~~The main difference is that drop down below the level of the take-off surface is permitted. In the drop down phase, the Category A procedure ensures deck-edge clearance but, once clear of the deck-edge, the 35 ft* clearance from obstacles relies upon the calculation of drop down. The alternative definition of the TODRH is applied.~~		
~~* 35ft may be inadequate at particular elevated FATO's which are subject to adverse airflow effects, turbulence, etc.~~		

A: Rule	B: Summary of comments	C: Reason for change, remarks
~~**Subpart B - Commercial Air Transport**~~		
~~**Section I - General Requirements**~~		
~~**AMC1 OPS.CAT.010AMCDefinitions**~~		This paragraph has been merged with GM OPS.GEN.010 into a separate AMC Definitions to the OPS Parts.
1. **'**Accelerate-stop distance available (ASDA)**' means** ~~**:t**~~ ~~T~~he length of the take-off run available plus the length of stopway, if such stopway is declared available by the ~~competent authority~~**State of the aerodrome** and is capable of bearing the mass of the aeroplane under the prevailing operating conditions.		Definition slightly edited to align better with the Implementing Rules.
2. 'Approach procedure with vertical guidance (APV) operation' means an instrument approach which utilises lateral and vertical guidance, but does not meet the requirements established for precision approach and landing operations, with a decision height (DH) not lower than 200 ft and a runway visual range (RVR) of not less than 550 m for aeroplanes and 500 m for helicopters.	1. Eurocontrol: request to permit APV down to 200 ft and to amend the definition to: 'means an instrument approach which uses lateral and vertical guidance using SBAS or Barometric VNAV with a DH not lower than 200 ft and an RVR of not less than 550 m for aeroplanes and 500 m for helicopters'. 2. MS: request to align with AMC 20-28 and permit LPV (APV SBAS) including LPV 200 with DH of 200 ft.	1, 2 The DH has been lowered to 200 ft minimum, as the new rules include low visibility procedures. RVRs for aeroplanes and helicopters have been added, replacing the 600m of the NPA's definition. Editorial decision to transfer the definition from AMC4 OPS.GEN.150 (aligned with EU-OPS). In contrast with EU-OPS, the option for alternate values for DH/RVR to be approved by the competent authority is not

A: Rule	B: Summary of comments	C: Reason for change, remarks
		included in the definition.
3. 'Committal point' means the point in the approach at which the pilot flying decides that, in the event of an engine failure being recognised, the safest option is to continue to the elevated final approach and take-off area (elevated FATO).	MS, IND: request to add a definition for committal point as it is used in Guidance Material;	The definition has been added to AMC Definitions.
~~2. Contingency fuel. The fuel required to compensate for unforeseen factors which could have an influence on the fuel consumption to the destination aerodrome such as deviations of an individual aeroplane from the expected fuel consumption data, deviations from forecast meteorological conditions and deviations from planned routings and/or cruising levels/altitudes.~~	IND: request to amend the definition to "*An amount of fuel to cover unforeseen events that could negatively influence the planned fuel consumption*" as an individual aircraft that deviates from the expected fuel consumption would be covered by the high/low fuel consumption percentage, not by contingency fuel;	The definition has been moved to Annex I, and the second part covering possible causes for deviations in fuel consumption has been moved to GM1-CAT.OP.145.A(c)(3)(i) Fuel Policy.
4~~3~~. **'**Damp runway**' means a**~~A~~ runway ~~is considered damp when~~**where** the surface is not dry, but when the moisture on it does not give it a shiny appearance.		The definition has been transferred from AMC1 OPS.CAT.010 Definitions to AMC Definitions. It is in alignment with EU-OPS and remains unchanged for the moment. A future rulemaking task would consider amending the definitions for runway surface conditions, including consideration of the ICAO Annex 6 Part I definition of

A: Rule	B: Summary of comments	C: Reason for change, remarks
		the 'runway surface condition' in Amendment 33.
5. 'Exposure time' means the actual period during which the performance of the helicopter with the critical engine inoperative in still air does not guarantee a safe forced landing or the safe continuation of the flight.		Editorial decision to add the definition, in line with JAR-OPS 3.
6. 'Fail-operational flight control system' means a flight control system with which, in the event of a failure below alert height, the approach, flare and landing can be completed automatically. In the event of a failure, the automatic landing system will operate as a fail-passive system.		Transferred from GM1 OPS.SPA.001.LVO, and slightly edited to improve clarity.
7. 'Fail-operational hybrid landing system' means a system which consists of a primary fail-passive automatic landing system and a secondary independent guidance system enabling the pilot to complete a landing manually after failure of the primary system.		Transferred from GM1 OPS.SPA.001.LVO.
8. 'Fail-passive flight control system': a flight control system is fail-passive if, in the event of a failure, there is no significant out-of-trim condition or deviation of flight path or attitude but the landing is not completed automatically. For a fail-passive automatic flight control system		Transferred from GM1 OPS.SPA.001.LVO.

A: Rule	B: Summary of comments	C: Reason for change, remarks
the pilot assumes control of the aeroplane after a failure.		
9. 'Flight control system' in the context of low visibility operations means a system which includes an automatic landing system and/or a hybrid landing system.		Transferred from GM1 OPS.SPA.001.LVO and edited to identify its relevance for low visibility operations.
10. 'HEMS dispatch centre' means a place where, if established, the coordination or control of the helicopter emergency medical service (HEMS) flight takes place. It may be located in a HEMS operating base.		Transferred from OPS.GEN.010 Definitions, as this term is not used in Implementing Rules.
11. 'Hybrid head-up display landing system (hybrid HUDLS)' means a system which consists of a primary fail-passive automatic landing system and a secondary independent HUD/HUDLS enabling the pilot to complete a landing manually after failure of the primary system.		Transferred from GM1 OPS.SPA.001.LVO.
12. 'Landing distance available (LDAH)' means the length of the final approach and take-off area plus any additional area declared available by the State of the aerodrome and suitable for helicopters to complete the landing manoeuvre from a defined height.		Editorial decision to transfer this definition from GM3 OPS.CAT.355.H to AMC Definitions. Further edited to clarify that the State of the aerodrome declared what additional area is available.

A: Rule	B: Summary of comments	C: Reason for change, remarks
13. 'Landing distance required (LDRH)' means the horizontal distance required to land and come to a full stop from a point 15 m (50 ft) above the landing surface.		Editorial decision to transfer this definition from GM3 OPS.CAT.355.H to AMC Definitions.
~~6~~**14.** 'Maximum ~~s~~**S**tructural ~~l~~**L**anding **m**~~M~~ass' **mean**~~s~~ the maximum permissible total aeroplane mass upon landing under normal circumstances.		Minor edit.
15. 'Maximum zero fuel mass' means the maximum permissible mass of an aeroplane with no usable fuel. The mass of the fuel contained in particular tanks must be included in the zero fuel mass when it is explicitly mentioned in the aircraft flight manual.		Editorial decision to add this definition from EU-OPS 1.607, with minor editorial changes.
19. 'Rotation point (RP)' means the point at which a cyclic input is made to initiate a nose-down attitude change during the take-off flight path. It is the last point in the take-off path from which, in the event of an engine failure being recognised, a forced landing on the aerodrome can be achieved.	MS: request to add the definition for RP in line with JAR-OPS 3;	The definition has been added to AMC Definitions as the term is used in AMC/Guidance Material.
20. 'Touchdown and lift-off area (TLOF)' means a load-bearing area on which a helicopter may touch down or lift off.	Request from several commentators to add this definition;	Definition added here, aligned with JAR-OPS 3, as the term is not used in Implementing Rules.

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A: Rule	B: Summary of comments	C: Reason for change, remarks
~~7. Take-off decision point (TDP) means the point used in determining take-off performance from which, a power unit failure having been recognised at this point, either a rejected take-off may be made or a take-off safely continued.~~		Transferred to Annex I as the term is used in Implementing Rules.
~~8. Take-off distance available (TODAH) means the length of the final approach and take-off area plus the length of helicopter clearway (if provided) declared available and suitable for helicopters to complete the takeoff.~~		Transferred to Annex I, as the term is used in Implementing Rules.
~~9. Rejected take-off distance required (RTODRH) means the horizontal distance required from the start of the take-off to the point where the helicopter comes to a full stop following a power unit failure and rejection of the take-off at the take-off decision point.~~		Transferred to Annex I, as the term is used in Implementing Rules.
~~10. Landing decision point (LDP) means the point used in determining landing performance from which, a power unit failure having been recognised at this point, the landing may be safely continued or a baulked landing initiated.~~		Transferred to Annex I, as the term is used in Implementing Rules.
~~11. Rejected take-off distance available (RTODAH) means the length of the final approach and take-off area declared available and suitable for helicopters operated in Performance Class 1 to complete a rejected take-off.~~		Transferred to Annex I, as the term is used in Implementing Rules.