### Report on entire Annex

		eport on entire Annex			48.9
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference  Definition	INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES PART I. DEFINITIONS	Civil Aviation Rules (CAR) Part 1,Definitions and Abbreviations.	No Difference		Note: The Civil Aviation Act, Civil Aviation Rules, and Advisory Circulars are available on the CAANZ web site, http://www.caa.govt.nz.
	When the following terms are used in the Standards for the Airworthiness of Aircraft, they have the following meanings:  **Aeroplane.** A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.				
Chapter 1 Reference	Aircraft. Any 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.	Civil Aviation (CA) Act 1990; CAR Part 1.	No Difference		
Definition					
Chapter 1 Reference	Airworthy. The status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation.	CAR Part 1.	No Difference		Note: 'airworthy condition'.
Definition					

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### Report on entire Annex

Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference  Definition	Anticipated operating conditions. Those conditions which are known from experience or which can be reasonably envisaged to occur during the operational life of the aircraft taking into account the operations for which the aircraft is made eligible, the conditions so considered being relative to the meteorological state of the atmosphere, to the configuration of terrain, to the functioning of the aircraft, to the efficiency of personnel and to all the factors affecting safety in flight. Anticipated operating conditions do not include:  a) those extremes which can be effectively avoided by means of operating procedures; and  b) those extremes which occur so infrequently that to require the Standards to be met in such extremes would give a higher level of airworthiness than experience has shown to be necessary and practical.	CARs.	Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference  Definition	Appropriate airworthiness requirements. The comprehensive and detailed airworthiness codes established, adopted or accepted by a Contracting State for the class of aircraft, engine or propeller under consideration.	CARs.	Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference  Definition	Approved. Accepted by a Contracting State as suitable for a particular purpose.	CAR Part 1.	No Difference		

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#### Report on entire Annex

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference  Definition	Category A. With respect to helicopters, means a multi-engine helicopter designed with engine and system isolation features specified in Part IVB of Annex 8 and capable of operations using take-off and landing data scheduled under a critical engine failure concept which assures adequate designated surface area and adequate performance capability for continued safe flight or safe rejected take-off.	CARs.	Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference  Definition	Category B. With respect to helicopters, means a single-engine or multi-engine helicopter which does not meet Category A standards. Category B helicopters have no guaranteed capability to continue safe flight in the event of an engine failure, and a forced landing is assumed.	CARs.	Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference  Definition	Configuration (as applied to the aeroplane). A particular combination of the positions of the moveable elements, such as wing flaps and landing gear, etc., that affect the aerodynamic characteristics of the aeroplane.	CAR Part 1.	No Difference		
Chapter 1 Reference  Definition	Continuing airworthiness. The set of processes by which an aircraft, engine, propeller or part complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life.	CAR Part 1.	Less protective or partially implemented or not implemented	Not defined.	Common usage term.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference  Definition	Critical engine(s). Any engine whose failure gives the most adverse effect on the aircraft characteristics relative to the case under consideration.  Note.— On some aircraft there may be more than one equally critical engine. In this case, the expression "the critical engine" means one of those critical engines.	CAR Part 1.	Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference  Definition	<b>Design landing mass.</b> The maximum mass of the aircraft at which, for structural design purposes, it is assumed that it will be planned to land.	CARs.	Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference Definition	<b>Design take-off mass.</b> The maximum mass at which the aircraft, for structural design purposes, is assumed to be planned to be at the start of the take-off run.		Different in character or other means of compliance	'Design take-off mass' is referred to as 'maxiumum certificated take-off weight'.	
Chapter 1 Reference  Definition	<b>Design taxiing mass.</b> The maximum mass of the aircraft at which structural provision is made for load liable to occur during use of the aircraft on the ground prior to the start of take-off.		Less protective or partially implemented or not implemented	Not defined.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference  Definition	Discrete source damage. Structural damage of the aeroplane that is likely to result from: impact with a bird, uncontained fan blade failure, uncontained engine failure, uncontained high-energy rotating machinery failure or similar causes.	CARs.	Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference Definition	Engine. A unit used or intended to be used for aircraft propulsion. It consists of at least those components and equipment necessary for functioning and control, but excludes the propeller/rotors (if applicable).	CAR Part 1.	Different in character or other means of compliance	"Aircraft engine".	
Chapter 1 Reference  Definition	Factor of safety. A design factor used to provide for the possibility of loads greater than those assumed, and for uncertainties in design and fabrication.	CARs.	Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference  Definition	Final approach and take-off area (FATO). A defined area over which the final phase of the approach manoeuvre to hover or landing is completed and from which the take-off manoeuvre is commenced. Where the FATO is to be used by performance Class 1 helicopters, the defined area includes the rejected take-off area available.	Advisory Circular (AC)139-8, (Aerodrome design, heliports), 1.3.	No Difference		
Chapter 1 Reference Definition	Fireproof. The capability to withstand the application of heat by a flame for a period of 15 minutes.  Note.— The characteristics of an acceptable flame can be found in ISO 2685.	CARs.	Less protective or partially implemented or not implemented	Not defined.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference  Definition	Fire resistant. The capability to withstand the application of heat by a flame for a period of 5 minutes.  Note.— The characteristics of an acceptable flame can be found in ISO 2685.	CARs.	Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference  Definition	Helicopter. 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.  Note.— Some States use the term "rotorcraft" as an alternative to "helicopter".	CAR Part 1.	No Difference		
Chapter 1 Reference  Definition	Human factors principles. Principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.	CARs.	Less protective or partially implemented or not implemented	Not defined.	Common usage term.
Chapter 1 Reference  Definition	Human performance. Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.	CARs.	Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference  Definition	Landing surface. That part of the surface of an aerodrome which the aerodrome authority has declared available for the normal ground or water run of aircraft landing in a particular direction.	CAR Part 1.	Different in character or other means of compliance	"Manoeuvring area".	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference Definition	Limit loads. The maximum loads assumed to occur in the anticipated operating conditions.	CARs.	Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference  Definition	<b>Load factor.</b> The ratio of a specified load to the weight of the aircraft, the former being expressed in terms of aero-dynamic forces, inertia forces, or ground reactions.	CARs.	Less protective or partially implemented or not implemented	Not defined.	Common usage term.
Chapter 1 Reference  Definition	Maintenance.† The performance of tasks required to ensure the continuing airworthiness of an aircraft, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.		No Difference		
Chapter 1 Reference  Definition	# Applicable until 4 November 2020.  **Maintenance.††** The performance of tasks on an aircraft, engine, propeller or associated part required to ensure the continuing airworthiness of an aircraft engine, propeller or associated part including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.  †† Applicable as of 5 November 2020.	CAR Part 1.	No Difference		

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LFTH EDITION - NOVEMBER 2018

### Annex 8, Amendment 106

### Report on entire Annex

	Report on chart Annex					
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 1 Reference  Definition	Maintenance organization's procedures manual.†† A document endorsed by the head of the maintenance organization which details the maintenance organization's structure and management responsibilities, scope of work, description of facilities, maintenance procedures and quality assurance or inspection systems.  †† Applicable as of 5 November 2020.	CAR 145.59	No Difference		Note: the rule states the requirement - the definition is self-evident.	
Chapter 1 Reference	Maintenance records.†† Records that set out the details of the maintenance carried out on an aircraft, engine, propeller or associated part.	CAR 21.69.	No Difference		Note: the rule states the requirement - the definition is self-evident.	
Definition  Chapter 1  Reference  Definition	### Applicable as of 5 November 2020.  **Maintenance release.*†† A document which contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner in accordance with appropriate airworthiness requirements.  **†† Applicable as of 5 November 2020.	CAR 91.619.	Different in character or other means of compliance	The Technical Log is the equivalent document.	See also CAR 43.103(c) re certifying release to service in the Technical Log.	
Chapter 1 Reference  Definition	Modification. A change to the type design of an aircraft, engine or propeller.  Note.— A modification may also include the embodiment of the modification which is a maintenance task subject to a maintenance release. Further guidance on aircraft maintenance, modification and repair is contained in the Airworthiness Manual (Doc 9760).	CAR Part 1.	No Difference			

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	Report on entire Annex				
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference  Definition	Organization responsible for the type design. The organization that holds the type certificate, or equivalent document, for an aircraft, engine or propeller type, issued by a Contracting State.	CAR Part 146.	Different in character or other means of compliance	Part 146 prescribes the requirement for a design organisation certificate, and from which the definition can be inferred.	
Chapter 1 Reference  Definition	Orphan aircraft type. An aircraft which has its Type Certificate revoked by the State of Design, and no longer has a designated State of Design in accordance with Annex 8. These aircraft do not meet the Standards of Annex 8.	CARs.	Less protective or partially implemented or not implemented	Not specifically defined.	Note: commonly understood term.
Chapter 1 Reference  Definition	Performance Class 1 helicopter. A helicopter with performance such that, in case of engine failure, it is able to land on the rejected take-off area or safely continue the flight to an appropriate landing area.	CAR Part 1.	No Difference		
Chapter 1 Reference  Definition	Performance Class 2 helicopter. A helicopter with performance such that, in case of engine failure, it is able to safely continue the flight, except when the failure occurs prior to a defined point after take-off or after a defined point before landing, in which cases a forced landing may be required.		Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference  Definition	Performance Class 3 helicopter. A helicopter with performance such that, in case of engine failure at any point in the flight profile, a forced landing must be performed.		Less protective or partially implemented or not implemented	Not defined.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference  Definition	<b>Powerplant.</b> The system consisting of all the engines, drive system components (if applicable), and propellers (if installed), their accessories, ancillary parts, and fuel and oil systems installed on an aircraft but excluding the rotors for a helicopter.		Less protective or partially implemented or not implemented	Not specifically defined.	
Chapter 1 Reference  Definition	<b>Pressure-altitude.</b> An atmospheric pressure expressed in terms of altitude which corresponds to that pressure in the standard atmosphere.	CAR Part 1.	No Difference		
Chapter 1 Reference  Definition	Rendering (a Certificate of Airworthiness) valid. The action taken by a Contracting State, as an alternative to issuing its own Certificate of Airworthiness, in accepting a Certificate of Airworthiness issued by any other Contracting State as the equivalent of its own Certificate of Airworthiness.		Less protective or partially implemented or not implemented	Not defined.	
Chapter 1 Reference Definition	Repair.† The restoration of an aeronautical product to an airworthy condition as defined by the appropriate airworthiness requirements.  † Applicable until 4 November 2020.	CAR Part 1.	No Difference		

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New Zealand	Zealand Annex 8, Amendment 106 Report on entire Annex				
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference  Definition	Repair.†† The restoration of an aircraft, engine, propeller or associated part to an airworthy condition in accordance with the appropriate airworthiness requirements after it has been damaged or subjected to wear.  †† Applicable as of 5 November 2020.	CAR Part 1.	No Difference		
Chapter 1 Reference  Definition	Satisfactory evidence. A set of documents or activities that a Contracting State accepts as sufficient to show compliance with an airworthiness requirement.		Less protective or partially implemented or not implemented	Not defined.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference  Definition	Standard atmosphere. An atmosphere defined as follows:  a) the air is a perfect dry gas; b) the physical constants are:  — Sea level mean molar mass: M0 = 28.964 420 × 10–3 kg mol–1 — Sea level atmospheric pressure: P0 = 1 013.250 hPa — Sea level temperature: t0 = 15°C T0 = 288.15 K — Sea level atmospheric density: p0 = 1.225 0 kg m–3 — Temperature of the ice point: Ti = 273.15 K — Universal gas constant: R* = 8.314 32 JK–1mol–1  c) the temperature gradients are:  Geopotential altitude (km) Temperature gradient (Kelvin per standard geopotential kilometre)  From To	CAR Part 1.	Less protective or partially implemented or not implemented	Partially defined under "Altimeter setting (QNH)".	
	75.0 11.0 -6.5 11.0 20.0 0.0 20.0 32.0 +1.0 32.0 47.0 +2.8 47.0 51.0 0.0 51.0 71.0 -2.8 71.0 80.0 -2.0  Note 1.— The standard geopotential metre has the value 9.806 65 m2 s-2.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	Note 2.— See Doc 7488 for the relationship between the variables and for tables giving the corresponding values of temperature, pressure, density and geopotential.				
	Note 3.— Doc 7488 also gives the specific weight, dynamic viscosity, kinematic viscosity and speed of sound at various altitudes.				
Chapter 1 Reference	State of Design. The State having jurisdiction over the organization responsible for the type design.	CAR Part 1.	No Difference		
Definition					
Chapter 1 Reference Definition	State of Manufacture. The State having jurisdiction over the organization responsible for the final assembly of the aircraft, engine or propeller.		Less protective or partially implemented or not implemented	Not specifically defined.	Common usage term. Note: New Zealand is not the State of Manufacture of engines or propellers.
Definition					

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### Report on entire Annex

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1	State of Registry. The State on whose register the aircraft is	CAR Part 1.	No Difference		
Reference	entered.	Criter are 1.	1 to Billerence		
Definition	Note.— In the case of the registration of aircraft of an international operating agency on other than a national basis, the States constituting the agency are jointly and severally bound to assume the obligations which, under the Chicago Convention, attach to a State of Registry. See, in this regard, the Council Resolution of 14 December 1967 on Nationality and Registration of Aircraft Operated by International Operating Agencies which can be found in Policy and Guidance Material on the Economic Regulation of International Air Transport (Doc 9587).				
Chapter 1	Take-off surface. That part of the surface of an aerodrome	CAR Part 1.	Different in	"Manoeuvring area".	
Reference	which the aerodrome authority has declared available for the normal ground or water run of aircraft taking off in a particular direction.		character or other means of compliance	Thursday Thung and a T	
Definition					
Chapter 1	Type Certificate. A document issued by a Contracting State	CAR 21.3.	No Difference		
Reference	to define the design of an aircraft, engine or propeller type and to certify that this design meets the appropriate airworthiness requirements of that State.		and a surface of the		
Definition	Note.— In some Contracting States a document equivalent to a Type Certificate may be issued for an engine or propeller type.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference  Definition	<i>Type design.</i> The set of data and information necessary to define an aircraft, engine or propeller type for the purpose of airworthiness determination.		Less protective or partially implemented or not implemented	Not specifically defined.	Note: New Zealand is not the State of Design of engines or propellers.
Chapter 1 Reference  Definition	Ultimate load. The limit load multiplied by the appropriate factor of safety.		Less protective or partially implemented or not implemented	Not defined.	

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difference to be ed to ICAO	Comments including the reason for the difference						

Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.1 Standard	PART II. PROCEDURES FOR CERTIFICATION AND CONTINUING AIRWORTHINESS	CAR 21.11.	No Difference		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg
	Note.— Although the Convention on International Civil Aviation allocates to the State of Registry certain functions which that State is entitled to discharge, or obligated to discharge, as the case may be, the Assembly recognized, in Resolution A23-13, that the State of Registry may be unable to fulfil its responsibilities adequately in instances where aircraft are leased, chartered or interchanged — in particular without crew — by an operator of another State and that the Convention may not adequately specify the rights and obligations of the State of the Operator in such instances until such time as Article 83 bis of the Convention enters into force. Accordingly, the Council urged that if, in the above-mentioned instances, the State of Registry finds itself unable to discharge adequately the functions allocated to it by the Convention, it delegate to the State of the Operator, subject to acceptance by the latter State, those functions of the State of Registry that can more adequately be discharged by the State of the Operator. It was understood that pending entry into force of Article 83 bis of the Convention, the foregoing action would only be a matter of practical convenience and would not affect either the provisions of the Chicago Convention prescribing the duties of the State of Registry or any third State. However, as Article 83 bis entered into force on 20 June 1997, such transfer agreements will have effect in respect of those Contracting States which have ratified the related Protocol (Doc 9318) upon fulfilment of the conditions established in Article 83 bis.				

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### Report on entire Annex AIRWORTHINESS OF AIRCRAFT Level of Text of the difference to be Annex Reference State Legislation, Comments including the **Regulation or Document** implementation notified to ICAO reason for the difference Reference of SARP's **Standard or Recommended Practice CHAPTER 1. TYPE CERTIFICATION** 1.1 Applicability The Standards of this chapter shall be applicable to all aircraft, and to engines and propellers if type certificated separately, for which the application for certification was submitted to a Contracting State on or after 13 June 1960, except that: a) the provisions of 1.4 of this part shall only be applicable to an aircraft type for which an application for a Type Certificate was submitted to the State of Design on or after 2 March 2004; b) the provisions of 1.4 of this part shall only be applicable to an engine or propeller type for which an application for a Type Certificate was submitted to the State of Design on or after 10 November 2016; c) the provisions of 1.2.6 of this part shall only be applicable to an aircraft type for which an application for a Type Certificate was submitted to the State of Design on or after 31 December 2014; and d) the provisions of 1.2.7 of this part shall only be applicable to an aircraft type for which an application for a Type Certificate is submitted to the State of Design on or after 28 November 2024. Note 1.— Normally, a request for a Type Certificate is submitted by the manufacturer when the aircraft, engine or propeller is intended for serial production.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	Note 2.— For Part VB aeroplanes, guidance material concerning the appropriate airworthiness safety levels commensurate with acceptable risk levels is contained in the Airworthiness Manual (Doc 9760).				
Chapter 1 Reference 1.2.1 Standard	1.2.1 The design aspects of the appropriate airworthiness requirements  1.2.1 The design aspects of the appropriate airworthiness requirements, used by a Contracting State for type certification of an aircraft, engine or propeller or for any change to such type certification, shall be such that compliance with them will ensure compliance with the Standards of this part and, where applicable, with the Standards of Parts III, IV, V, VI or VII of this Annex.	CAR Part 21 (Certification of Products and Parts), Subpart B (Type Certificates and Type Acceptance Certificates).	No Difference		Note: CAR Part 21, Subpart C incorporates by reference the United States Federal Aviation Regulations (FARs), which enables compliance with Parts II to VII of Annex 8. New Zealand is not the State of Design of engines, propellers or Aeroplanes over 5700 kg
Chapter 1 Reference 1.2.2 Recommendation	1.2.2 <b>Recommendation.</b> — As of 7 March 2021, when establishing the appropriate airworthiness requirements, a risk-based proportionality approach should be applied.  Note.— For Part VB aeroplanes, guidance material concerning the appropriate airworthiness safety levels commensurate with acceptable risk levels is contained in Doc 9760.		Not Applicable		Not yet applicable, but New Zealand is moving towards risk-based regulation, and surveillance is currently performed on this basis.
Chapter 1 Reference 1.2.3 Standard	1.2.3 The design shall not have any features or characteristics that render it unsafe under the anticipated operating conditions.	CAR 21.41(4).	No Difference		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.2.4 Standard	1.2.4 Where the design features of a particular aircraft, engine or propeller render any of the design aspects of the appropriate airworthiness requirements or the Standards in Parts III, IV, V, VI or VII inappropriate, the Contracting State shall apply appropriate requirements that will give at least an equivalent level of safety.	CAR 21.41(3).	No Difference		Note: New Zealand is not the State of Design of engines or propellers.
Chapter 1 Reference 1.2.5 Standard	1.2.5 Where the design features of a particular aircraft, engine or propeller render any of the design aspects of the appropriate airworthiness requirements or the Standards in Parts III, IV, V, VI or VII inadequate, additional requirements that are considered by the Contracting State to give at least an equivalent level of safety shall be applied.  *Note.*— An Airworthiness Manual (Doc 9760) containing guidance material has been published by ICAO.	CAR 21.41(3).	No Difference		Note: New Zealand is not the State of Design of engines or propellers.
Chapter 1 Reference 1.2.6 Standard	1.2.6 The approved design of an aircraft under Parts IIIB, IVB, VA and VB of this Annex shall use extinguishing agents that are not listed in the 1987 <i>Montreal Protocol on Substances that Deplete the Ozone Layer</i> as it appears in the Eighth Edition of the <i>Handbook for the Montreal Protocol on Substances that Deplete the Ozone Layer</i> , Annex A, Group II, in the aircraft fire suppression or extinguishing systems in the lavatories, engines and auxiliary power unit.  **Note.**—*Information concerning extinguishing agents is contained in the UNEP Halons Technical Options Committee Technical Note No. 1 — New Technology Halon Alternatives and FAA Report No. DOT/FAA/AR-99-63, Options to the Use of Halons for Aircraft Fire Suppression Systems.	CAR Part 91 (General Operating and Flight Rules), Appendix A, A.13.	Less protective or partially implemented or not implemented	Halon 1211 and 1301 are still permitted, pending identification of a suitable replacement extinguishing agent.	Note: New Zealand is not the State of Design or Manufacture of any aircraft in the listed categories. Certification of the one aeroplane that would fit Part V was completed before the Part VA date range.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.2.7 Standard	1.2.7 The approved design of an aircraft under Part IIIB of this Annex shall use extinguishing agents that are not listed in the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer as it appears in the Tenth Edition of the Handbook for the Montreal Protocol on Substances that Deplete the Ozone Layer, Annex A, Group II, in the aircraft fire suppression or extinguishing systems for the cargo compartment.  Note.— Information concerning acceptable agents is contained in the report of the UNEP Halons Technical Options Committee Technical Note No. 1 — New Technology Halon Alternatives and FAA Report No. DOT/FAA/AR-11-31, Options to the Use of Halons for Aircraft Fire Suppression Systems.		Not Applicable		New Zealand is not the State of Design or Manufacture of Part IIIB aircraft.
Chapter 1 Reference 1.3.1 Standard	1.3.1 There shall be an approved design consisting of such drawings, specifications, reports and documentary evidence as are necessary to define the design of the aircraft, engine or propeller and to show compliance with the design aspects of the appropriate airworthiness requirements.  Note.— The approval of the design is facilitated, in some States, by approving the design organization.	CAR 21.33(1).	No Difference		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.

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#### Report on entire Annex

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.3.2 Recommendation	1.3.2 Recommendation.— As of 7 March 2021, Contracting States should balance risks and rigor in the determination of compliance based on the acceptable level of risk determined for the product.  Note.— For the type certification of Part VB aeroplanes, guidance material addressing how States may balance risks and rigor in the determination of compliance is contained in Doc 9760.		Not Applicable		Not yet applicable. New Zealand is moving towards risk-based regulation, and surveillance is currently carried out on this basis.
Chapter 1 Reference 1.3.3 Standard	1.3.3 The aircraft, engine or propeller shall be subjected to such inspections and ground and flight tests as are deemed necessary by the State to show compliance with the design aspects of the appropriate airworthiness requirements.	CAR 21.35, 21.39.	No Difference		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.
Chapter 1 Reference 1.3.4 Standard	1.3.4 In addition to determining compliance with the design aspects of the appropriate airworthiness requirements for an aircraft, engine or propeller, Contracting States shall take whatever other steps they deem necessary to ensure that the design approval is withheld if the aircraft, engine or propeller is known or suspected to have dangerous features not specifically guarded against by those requirements.	CAR 21.31(3).	No Difference		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.

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LFTH EDITION - NOVEMBER 2018

## Annex 8, Amendment 106

### Report on entire Annex

Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.3.5 Standard	1.3.5 A Contracting State issuing an approval for the design of a modification, of a repair or of a replacement part shall do so on the basis of satisfactory evidence that the aircraft, engine or propeller is in compliance with the airworthiness requirements used for the issuance of the Type Certificate, its amendments or later requirements when	CAR 21.79(2).	No Difference		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.
	determined by the State.  Note 1.— While a repair may be completed and shown to be in compliance with the set of requirements that had been selected for the original type certification of the aircraft, engine or propeller, some repairs may need to be shown to comply with the latest applicable certification requirements. In such cases, States may issue a repair design approval against the latest set of requirements for that aircraft, engine or propeller type.  Note 2.— The approval of the design of a modification to an aircraft, engine or propeller is signified, in some States, by the issuance of a supplemental Type Certificate or amended Type Certificate.				
Chapter 1 Reference 1.4.1 Standard	1.4.1 The State of Design, upon receipt of satisfactory evidence that the aircraft, engine or propeller type if certificated separately is in compliance with the design aspects of the appropriate airworthiness requirements, shall issue a Type Certificate to define the type design and to signify its approval of the design of the aircraft type.	CAR 21.19(a).	No Difference		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.4.2 Standard	1.4.2 When a Contracting State, other than the State of Design, issues a Type Certificate for an aircraft, engine or propeller type, it shall do so on the basis of satisfactory evidence that the aircraft, engine or propeller type is in compliance with the design aspects of the appropriate airworthiness requirements.	CAR 21.19(a).	No Difference		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.
Chapter 1 Reference 1.5.1 Standard	1.5.1 When the State of Design takes action in accordance with its established procedures to suspend in whole or in part a Type Certificate for an aircraft, engine or propeller type, it shall immediately:  a) notify Contracting States of the suspension; the time period, if known, that the suspension is in force; the cause of the suspension; and any recommended action to be undertaken if the nature of the suspension affects the airworthiness of the affected aircraft, engine or propeller type; and		Not Applicable		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.
	b) establish with the State of Manufacture, if other than the State of Design, any actions necessary to address their respective airworthiness responsibilities under the agreement or arrangement established in accordance with 2.4.5 of this part.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 1 Reference 1.5.2 Standard	1.5.2 A Contracting State that issued a Type Certificate for an aircraft, engine or propeller type under 1.4.2 of this part, on the basis of the Type Certificate issued by the State of Design, shall immediately notify the State of Design of a suspension originated in respect of its equivalent Type Certificate.		Not Applicable		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.	
Chapter 1 Reference 1.5.3 Standard	1.5.3 During the period of suspension notified in 1.5.1 and 1.5.2, the State of Design shall continue to fulfil its assigned obligations on continuing airworthiness under Chapter 4 of this part.		Not Applicable		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.	
Chapter 1 Reference 1.5.4 Standard	1.5.4 The State of Design shall notify Contracting States and the State of Manufacture, if other than the State of Design, on a regular basis the status of the suspension and reinstatement of the suspended Type Certificate.		Not Applicable		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.6.1 Standard	1.6.1 The State of Design shall establish procedures for the revocation of a Type Certificate when the organization responsible for the type design surrenders or abandons the Type Certificate, or ceases to exist, and as a result the continuing airworthiness responsibilities established under Chapter 4 of this part can no longer be fulfilled for the affected aircraft type in service. The procedures, at a minimum, shall include:  a) notification to all Contracting States of an intent to revoke a Type Certificate and the proposed termination of the production approval under 2.4 of this part; and  b) consultation with States of Registry for the collection, identification and establishment of supplemental airworthiness requirements considered necessary for the continued airworthiness of the candidate orphan aircraft type.		Not Applicable		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.
Chapter 1 Reference 1.6.2 Standard	1.6.2 Except for reasons concerning the immediate safety of an aircraft type, the State of Design shall not unduly revoke a Type Certificate without providing ample notice and guidance to States of Registry that will be assuming ultimate responsibility for the continued airworthiness of orphaned aircraft on their civil register.		Not Applicable		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 1 Reference 1.6.3 Standard	1.6.3 The State of Design shall notify Contracting States, including the State of Manufacture if other than the State of Design, of the revocation of a Type Certificate and the effective date on which it ceases to be the designated State of Design under Annex 8.		Not Applicable		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.	
Chapter 1 Reference 1.7.1 Standard	1.7.1 The State of Design shall establish procedures for the transfer of a Type Certificate that ensures continued compliance of the approved design of the aircraft, engine or propeller type with the appropriate airworthiness requirements  a) for a transfer in which the State of Design remains the same; and  b) for a transfer in which the State of Design changes to another Contracting State.		Not Applicable		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.	
Chapter 1 Reference 1.7.2 Standard	1.7.2 The State of Design shall, upon completion of the transfer, issue or reissue its Type Certificate in accordance with 1.4.1 of this part.		Not Applicable		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.	
Chapter 1 Reference 1.7.3 Standard	1.7.3 Where the State of Manufacture of an aircraft, engine or propeller is not the State of Design, there shall be an agreement or arrangement in accordance with 2.4.5 and 4.2.2 of this part.		Not Applicable		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 1 Reference 1.7.4 Standard	1.7.4 The State of Design shall notify all Contracting States of the transfer and the organization responsible for the type design for purposes of the continuing airworthiness reporting requirements under Chapter 4 of this part.  Note.— Guidance material on the process for transfer of a Type Certificate is contained in Doc 9760.		Not Applicable		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.	
Chapter 2 Reference 2.1 Standard	CHAPTER 2. PRODUCTION  2.1 Applicability  The Standards of this chapter are applicable to the production of all aircraft, engines, propellers and associated parts.	CAR 21.171.	No Difference		Note: New Zealand is not the State of Manufacture of engines or propellers.	
Chapter 2 Reference 2.2 Standard	2.2 Aircraft, engine and propeller production  The State of Manufacture shall ensure that each aircraft, engine or propeller, including associated parts manufactured by sub-contractors and/or suppliers, is airworthy at the time of release.	CAR 21.191.	No Difference			

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.3 Standard	2.3 Aircraft parts production  The Contracting State taking responsibility for the production of aircraft parts manufactured under the design approval referred to in 1.3.5 of this part shall ensure that the aircraft parts are airworthy.		No Difference		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2	2.4 Production approval	CAR Part 148 (Aircraft	No Difference		
Reference		Manufacturing			
2.4.1	2.4.1 When approving production of an aircraft, engine,	Organisations -			
	propeller or associated part, the Contracting State having	Certification).			
Standard	jurisdiction over the organization responsible for production shall:				
Standard	Shair.				
	a) examine the supporting data and inspect the				
	production facilities and processes so as to				
	determine that the manufacturing organization is in compliance with the appropriate production				
	requirements; and				
	b) ensure that the manufacturing organization has established and can maintain a quality system or a production inspection system such as to guarantee that each aircraft, engine, propeller or associated part produced by the organization or by sub-contractors and/or suppliers is airworthy at the time of release.				
	Note 1.— Normally, the oversight of production is facilitated by approving the manufacturing organization.				
	Note 2.— Where the State of Manufacture is a State other than the Contracting State where the associated parts				
	are produced, there may be an agreement or arrangement				
	acceptable to both States to support the oversight				
	responsibilities of the State of Manufacture over the organizations manufacturing the associated parts.				
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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.4.2 Recommendation	2.4.2 Recommendation.— As of 7 March 2021, a Contracting State should balance risks and rigor when approving production of aircraft or aircraft parts based on the acceptable level of risk determined for the product as specified by the State of Design.  Note.— For the production approval of Part VB aeroplanes and their parts, guidance material addressing how States may balance risks and rigor in the determination of compliance is contained in the Airworthiness Manual (Doc 9760).		Not Applicable		Not yet applicable. New Zealand is moving towards risk-based regulation, and surveillance is currently carried out on this basis.
Chapter 2 Reference 2.4.3 Standard	2.4.3 The manufacturing organization shall hold, for each aircraft, engine, propeller or associated part, a design approval as referred to in 1.3 of this part, or the right of access under an agreement or arrangement to the approved design data relevant for production purposes.	CAR 148.57.	No Difference		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.
Chapter 2 Reference 2.4.4 Standard	2.4.4 Records shall be maintained such that the origin of each aircraft, engine, propeller and associated part, and its identification with the approved design and production data, can be established.  Note.— The origin of an aircraft, engine, propeller and associated part refers to the manufacturer, the date of manufacture, the serial number or other information that can be tracked to its production record.	CAR 21.625, 148.63.	No Difference		Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.

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New Zealand	Annex 8, Amendment 106 Report on entire Annex					
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 2 Reference 2.4.5 Standard	2.4.5 Where the State of Manufacture is not the State of Design, there shall be an agreement or arrangement acceptable to both States to:  a) ensure that the manufacturing organization has the right of access to the approved design data relevant for production purposes;  b) address the responsibilities of each State with regard to design, manufacture and continuing airworthiness of the aircraft, engine or propeller during the period of the agreement or arrangement, including such period when the State of Design takes action to suspend in whole or in part the Type Certificate of the affected aircraft type; and  c) terminate the production approval under this part when the State of Design revokes the Type Certificate corresponding to that aircraft type.	CAR Part 148.	Less protective or partially implemented or not implemented	Not implemented in respect of State agreements.	Note: New Zealand is not the State of Design or Manufacture of engines, propellers or aeroplanes over 5700 kg.	

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	Report on entire Annex				
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.1 Standard	CHAPTER 3. CERTIFICATE OF AIRWORTHINESS  Note.— The Certificate of Airworthiness as used in these	CAR Part 21, Subpart H.	Different in character or other means of compliance	No reference to 13 June 1960.	
	Standards is the Certificate of Airworthiness referred to in Article 31 of the Convention.  3.1 Applicability				
	The Standards of this chapter are applicable in respect of all aircraft, except 3.3 and 3.4 which are not applicable in respect of all aircraft that are of a type of which the prototype was submitted to appropriate national authorities for certification before 13 June 1960.				
Chapter 3 Reference 3.2.1 Standard	3.2 Eligibility, issuance and continued validity of a Certificate of Airworthiness  3.2.1 A Certificate of Airworthiness shall be issued by a Contracting State on the basis of satisfactory evidence that the aircraft complies with the design aspects of the appropriate airworthiness requirements.	CAR 21.177.	No Difference		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.2.2 Standard	3.2.2 A Contracting State shall issue or render valid a Certificate of Airworthiness for which it intends to claim recognition pursuant to Article 33 of the Convention on International Civil Aviation when it has satisfactory evidence that the aircraft complies with the applicable Standards of this Annex through compliance with appropriate airworthiness requirements.  **Note.**— Some Contracting States facilitate the issuance of a "Special Certificate of Airworthiness" or similar to denote that an aircraft does not meet the Standards of Annex 8. While not valid for the purpose of international flight, such a document provides conditions and limitations that may be required by other Contracting States for the purpose of granting approvals to fly within or through their jurisdiction.	CAR 21.191, 21.333.	No Difference		
Chapter 3 Reference 3.2.3 Standard	3.2.3 A Certificate of Airworthiness shall be renewed or shall remain valid, subject to the laws of the State of Registry, provided that the State of Registry shall require that the continuing airworthiness of the aircraft shall be determined by a periodical inspection at appropriate intervals having regard to lapse of time and type of service or, alternatively, by means of a system of inspection, approved by the State, that will produce at least an equivalent result.	(4)(-),, >	No Difference		

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New Zealand	Report on entire Annex  Annex 8, Amendment 106  Report on entire Annex					
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 3 Reference 3.2.4 Standard	3.2.4 When an aircraft possessing a valid Certificate of Airworthiness issued by a Contracting State is entered on the register of another Contracting State, the new State of Registry, when issuing its Certificate of Airworthiness may consider the previous Certificate of Airworthiness as satisfactory evidence, in whole or in part, that the aircraft complies with the applicable Standards of this Annex through compliance with the appropriate airworthiness requirements.  **Note.**— Some Contracting States facilitate the transfer of aircraft onto the register of another State by the issue of an "Export Certificate of Airworthiness" or similarly titled document. While not valid for the purpose of flight, such a document provides confirmation by the exporting State of a recent satisfactory review of the airworthiness status of the aircraft. Guidance material on the issue of an "Export Certificate of Airworthiness" is contained in the Airworthiness Manual (Doc 9760).	CAR 21.191; CAR Part 21, Subpart L.	No Difference		Note; The "Export Certificate of Airworthiness" process is used.	
Chapter 3 Reference 3.2.5 Standard	3.2.5 When a State of Registry renders valid a Certificate of Airworthiness issued by another Contracting State, as an alternative to issuance of its own Certificate of Airworthiness, it shall establish validity by suitable authorization to be carried with the former Certificate of Airworthiness accepting it as the equivalent of the latter. The validity of the authorization shall not extend beyond the period of validity of the Certificate of Airworthiness being rendered valid. The State of Registry shall ensure that the continuing airworthiness of the aircraft is determined in accordance with 3.2.3.		Not Applicable		Validation not applicable - a New Zealand registered aircraft requires a New Zealand Airworthiness Certificate.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.3.1 Standard	3.3 Standard form of Certificate of Airworthiness  3.3.1 The Certificate of Airworthiness shall contain the information shown in Figure 1 and shall be generally similar to it.	NZ Airworthiness Certificate, CA Form 24021/05.	No Difference		
Chapter 3 Reference 3.3.2 Standard	3.3.2 When Certificates of Airworthiness are issued in a language other than English, they shall include an English translation.  Note.— Article 29 of the Convention on International Civil Aviation requires that the Certificate of Airworthiness be carried on board every aircraft engaged in international air navigation.		Not Applicable		Airworthiness Certificates are issued in English.
Chapter 3 Reference 3.4 Standard	3.4 Aircraft limitations and information  Each aircraft shall be provided with a flight manual, placards or other documents stating the approved limitations within which the aircraft is considered airworthy as defined by the appropriate airworthiness requirements and additional instructions and information necessary for the safe operation of the aircraft.	CAR Part 21, Appendix C(c).	No Difference		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference			
Chapter 3 Reference 3.5 Standard	3.5 Temporary loss of airworthiness  Any failure to maintain an aircraft in an airworthy condition as defined by the appropriate airworthiness requirements shall render the aircraft ineligible for operation until the aircraft is restored to an airworthy condition.	CAR 21.179(a), 91.101 (a) (1) and (2).	No Difference					
Chapter 3 Reference 3.6.1 Standard	3.6.1 When an aircraft has sustained damage, the State of Registry shall judge whether the damage is of a nature such that the aircraft is no longer airworthy as defined by the appropriate airworthiness requirements.	CA Act 1990 s17(2); CAR 91.201.	Different in character or other means of compliance	New Zealand Civil Aviation Rules (CAR) place responsibility for judgement of aircraft damage, to ensure an aircraft's airworthiness, on licensed pilots and maintenance engineers, based on provisions of CARs 91.201 and 43.53. New Zealand, as the State of Registry, does not directly judge whether the damage renders the aircraft no longer airworthy. Irrespective of aircraft damage, the Airworthiness Certificate remains valid unless the Director uses provisions of \$17(2) of the Civil Aviation Act 1990 to revoke the certificate.				

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New Zealand	Report on entire Annex  Annex 8, Amendment 106				
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.6.2 Standard	3.6.2 If the damage is sustained or ascertained when the aircraft is in the territory of another Contracting State, the authorities of the other Contracting State shall be entitled to prevent the aircraft from resuming its flight on the condition that they shall advise the State of Registry immediately, communicating to it all details necessary to formulate the judgement referred to in 3.6.1.	CA Act 1990 s17(2); CAA Safety Investigation Unit (SIU) Notification Procedure.	No Difference		
Chapter 3 Reference 3.6.3 Standard	3.6.3 When the State of Registry considers that the damage sustained is of a nature such that the aircraft is no longer airworthy, it shall prohibit the aircraft from resuming flight until it is restored to an airworthy condition. The State of Registry may, however, in exceptional circumstances, prescribe particular limiting conditions to permit the aircraft to fly a non-commercial air transport operation to an aerodrome at which it will be restored to an airworthy condition. In prescribing particular limiting conditions, the State of Registry shall consider all limitations proposed by the Contracting State that had originally, in accordance with 3.6.2, prevented the aircraft from resuming its flight. That Contracting State shall permit such flight or flights within the prescribed limitations.	CA Act 1990 s17(2); CAR 21.195.	Different in character or other means of compliance	As in Standard 3.6.1, New Zealand Civil Aviation Rules (CAR) do not place direct responsibility on the State of Registry to determine if the damage sustained is of a nature such that the aircraft is no longer airworthy. The Act (\$17(2)) provides for the Director to impose condtions if there is reasonable doubt as to airworthiness; rule 21.195 provides for the issue of a special category - special flight permit to enable flight to an aerodrome at which restoration to an airworthy condition can be performed.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 3 Reference 3.6.4	3.6.4 When the State of Registry considers that the damage sustained is of a nature such that the aircraft is still airworthy, the aircraft shall be allowed to resume its flight.  * State of Registry Issuing Authority CERTIFICATE OF AIRWORTHINESS *	CA Act s17(2); CAR 91.201.	Different in character or other means of compliance	The Act provides for the Director to impose condtions if there is reasonable doubt as to airworthiness, however,		
Standard	1. Nationality and registration marks  2. Manufacturer and manufacturer's designation of aircraft**  3. Aircraft serial number  4. Categories and/or operation***  5. This Certificate of Airworthiness is issued pursuant to the Convention on International Civil Aviation dated 7 December 1944 and ‡			the CARs do not place direct responsibility on the State of Registry to determine if the damage sustained is of a nature such that the aircraft is no longer airworthy. In this situation, if the pilot determines that the aircraft is airworthy as per CAR 91.201, then the aircraft can resume its flight. CAR 12.55 requires all serious incidents, or immediate hazard to the safety of aircraft operations, to be reported. This provides the CAA a means of		
	<ul> <li>For use of the State of Registry.</li> <li>** Manufacturer's designation of aircraft should contain the aircraft type and model.</li> </ul>			monitoring compliance with CAR 91.201.		
	*** This space is normally used to indicate the certification basis, i.e. certification code, with which the particular aircraft complies and/or its permitted operational category, e.g. commercial air transportation, aerial work or private.					
	**** This space shall be used either for periodic endorsement (giving date of expiry) or for a statement that the					

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aircraft is being maintained under a system of continuous

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	inspection.  Figure 1				
Chapter 4 Reference 4.1	CHAPTER 4. CONTINUING AIRWORTHINESS	CAR Part 21.	No Difference		
Standard	4.1 Applicability  The Standards of this chapter are applicable to all aircraft, engines, propellers and associated parts.				
Chapter 4 Reference 4.2 Note	4.2 Responsibilities of Contracting States in respect of continuing airworthiness  Note.— Guidance material on continuing airworthiness requirements is contained in the Airworthiness Manual (Doc 9760).		Not Applicable		Note only.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.2.1.1	4.2.1 State of Design 4.2.1.1 The State of Design of an aircraft shall:	a) CAANZ Airworthiness Procedures. Items b), c) and d) are not applicable.	No Difference		Note: New Zealand is not the State of Design for any aeroplanes over 5 700 kg or any helicopters.
Standard	a) transmit to every Contracting State which has in accordance with 4.2.3.1 a) advised the State of Design of the aircraft that it has entered the aircraft on its register, and to any other Contracting State upon request, any generally applicable information which it has found necessary for the continuing airworthiness and safe operation of the aircraft, including any engines and propellers (hereinafter called mandatory continuing airworthiness information);				
	Note 1.— The term "mandatory continuing airworthiness information" is intended to include mandatory requirements for modification, replacement of parts or inspection of aircraft and amendment of operating limitations and procedures. Among such information is that issued by Contracting States in the form of airworthiness directives.				
	Note 2.— The Continuing Airworthiness of Aircraft in Service (Cir 95) provides the necessary information to assist Contracting States in establishing contact with competent authorities of other Contracting States for the purpose of maintaining continuing airworthiness of aircraft in service.				
	Note 3.— If the State of Design of the aircraft is satisfied that mandatory continuing airworthiness information previously issued by the State of Design of the engine or propeller under 4.2.1.2 fully addresses a continuing airworthiness issue, then the				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	State of Design of the aircraft need not retransmit that information to Contracting States that have already been informed.				
	b) ensure that, in respect of aeroplanes over 5 700 kg and helicopters over 3 175 kg maximum certificated take-off mass, there exists a system for:				
	i) receiving information submitted in accordance with 4.2.3.1 f);				
	ii) deciding if and when airworthiness action is needed;				
	iii) developing the necessary airworthiness actions; and				
	<ul> <li>iv) promulgating the information on those actions including that required in 4.2.1.1 a);</li> <li>c) ensure that, in respect of aeroplanes over 5 700 kg maximum certificated take-off mass, there exists a continuing structural integrity programme to ensure the airworthiness of the aeroplane. The programme shall include specific information concerning corrosion prevention and control.</li> </ul>				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.2.1.2	4.2.1.2 The State of Design of an engine or a propeller, where it is different from the State of Design of the aircraft, shall:		Not Applicable		New Zealand is not the State of Design or Manufacture of any engines or propellers.
Standard	a) transmit any continuing airworthiness information to the State of Design of the aircraft and to any other Contracting State upon request;				engines of properties.
	Note.— While the overall responsibility for the transmission of mandatory continuing airworthiness information rests with the State of Design of the aircraft, it is recognized that some States of Design of the engine or propeller transmit mandatory continuing airworthiness information directly to States of Registry and other Contracting States. This practice has the benefit of speeding up the availability of mandatory continuing airworthiness information and processing this information in the normal way in accordance with 4.2.3.1 d). However, if the State of Design of the aircraft subsequently transmits additional mandatory continuing airworthiness information to that of the State of Design of the engine or propeller, then the mandatory continuing airworthiness information originating from the State of Design of the aircraft must take precedence in case of incompatibility.				
	b) ensure that, in respect of engines and propellers installed on aeroplanes over 5 700 kg and helicopters over 3 175 kg maximum certificated take-off mass, there exists a system for:				
	i) receiving information submitted in accordance with 4.2.3 f);				
	ii) deciding if and when airworthiness action is needed; and				
	iii) developing the necessary airworthiness actions.				

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## Annex 8, Amendment 106

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.2.1.3 Standard	4.2.1.3 Where the State of Design of a modification is different from the State of Design of the aircraft, engine or propeller being modified, the State of Design of the modification shall transmit the mandatory continuing airworthiness information to all States that have the modified aircraft on their registries.	CAR 146.61.	Less protective or partially implemented or not implemented	Not implemented in respect of notifying other States; the obligation is to any other user of that particular design.	
Chapter 4 Reference 4.2.1.4 Standard	4.2.1.4 Where, for a given aircraft, engine or propeller, the State of Manufacture is not the State of Design, then the State of Design shall ensure that there is an agreement acceptable to both States to ensure that the manufacturing organization cooperates with the organization responsible for the type design in assessing information on the design, manufacture and operation of the aircraft, engine or propeller.  Note.— Guidance material on the interpretation of "the organization responsible for type design" is contained in Doc 9760.		Not Applicable		New Zealand is not the State of Manufacture for any aircraft for which it is not the State of Design; and is not the State of Design or Manufacture of any engine or propeller.
Chapter 4 Reference 4.2.1.5 Standard	4.2.1.5 The State of Design shall ensure that sensitive aviation security information is not transmitted when distributing mandatory continuing airworthiness information.	CARs.	Less protective or partially implemented or not implemented	Not implemented.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.2.1.6 Standard	4.2.1.6 The State of Design shall ensure that sensitive aviation security information is securely transmitted to the appropriate authority in the States of Registry in accordance with Annex 17 — Security — Safeguarding International Civil Aviation against Acts of Unlawful Interference.  Note.— Guidance material on the secure transmission of sensitive aviation security information is contained in Doc 9760.	·	Less protective or partially implemented or not implemented	The relevant Annex 17 Standards are 4.9.1 and 4.9.2. Cybersecurity is very much a live issue, but there is nothing promulgated in relation to this Standard.	
Chapter 4 Reference 4.2.2 Standard	4.2.2 State of Manufacture  The State of Manufacture shall ensure that where it is not the State of Design there is an agreement acceptable to both States to ensure that the manufacturing organization cooperates with the organization responsible for the type design in assessing information on the design, manufacture and operation of the aircraft, engine or propeller.		Not Applicable		New Zealand is not the State of Manufacture for any aircraft for which it is not the State of Design; and is not the State of Design or Manufacture of any engine or propeller.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4	4.2.3 State of Registry	Items d), e) and f) AU	Less protective	There is no process for	
Reference 4.2.3.1	4.2.3.1 The State of Registry shall:	Procedures; b) and c) CAR 21.179(a).	or partially implemented or not	notifying the State of Design in accordance with	
Standard	<ul> <li>a) ensure that, when it first enters on its register an aircraft of a particular type for which it is not the State of Design and issues or validates a Certificate of Airworthiness in accordance with 3.2 of this part, it shall advise the State of Design that it has entered such an aircraft on its register;</li> </ul>		implemented	a).	
	b) determine the continuing airworthiness of an aircraft in relation to the appropriate airworthiness requirements in force for that aircraft;				
	c) develop or adopt requirements to ensure the continuing airworthiness of the aircraft during its service life, including requirements to ensure that the aircraft:				
	<ul> <li>continues to comply with the appropriate airworthiness requirements after a modification, a repair or the installation of a replacement part; and</li> </ul>				
	ii) is maintained in an airworthy condition and in compliance with the maintenance requirements of Annex 6 — <i>Operation of Aircraft</i> , and where applicable, Parts III, IV, V, VI and VII of this Annex;				
	d) upon receipt of mandatory continuing airworthiness information from the State of Design, adopt the mandatory information directly or assess the information received and take appropriate action;				
	e) ensure that all mandatory continuing airworthiness				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	information which it, as the State of Registry, originated in respect of that aircraft, is transmitted to the appropriate State of Design; and  f) ensure that, in respect of aeroplanes over 5 700 kg and helicopters over 3 175 kg maximum certificated take-off mass, there exists a system whereby information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft is transmitted to the organization responsible for the type design of that aircraft. Whenever this information relates to an engine or propeller, such information shall be transmitted to both the organization responsible for engine or propeller type design and the organization responsible for aircraft type design. Where a continuing airworthiness safety issue is associated with a modification, the State of Registry shall ensure that there exists a system whereby the above information is transmitted to the organization responsible for the design of the modification.				
Chapter 4 Reference 4.2.3.2 Standard	4.2.3.2 As of 5 November 2020, when approving a maintenance organization or accepting the approval of a maintenance organization issued by another Contracting State, the State of Registry shall ensure compliance with the Standards of Chapter 6 of this part.  Note.— Chapter 6 provides requirements for accepting the approval of a maintenance organization issued by another Contracting State.	CAR Part 145.	No Difference		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.2.3.3 Standard	4.2.3.3 The State of Registry shall ensure that sensitive aviation security information is not transmitted when distributing mandatory continuing airworthiness information.	No specific reference.	Less protective or partially implemented or not implemented	The relevant Annex 17 Standards are 4.9.1 and 4.9.2. Cybersecurity is very much a live issue, but there is nothing promulgated in relation to this Standard.	
Chapter 4 Reference 4.2.3.4 Standard	4.2.3.4 The State of Registry shall ensure that sensitive aviation security information is securely transmitted to the appropriate authority in the State of Design in accordance with Annex 17.  Note.— Guidance material on the transmission of sensitive aviation security information is contained in Doc 9760.	No specific reference.	Less protective or partially implemented or not implemented	The relevant Annex 17 Standards are 4.9.1 and 4.9.2. Cybersecurity is very much a live issue, but there is nothing promulgated in relation to this Standard.	
Chapter 4 Reference 4.2.4 Standard	4.2.4 All Contracting States  Each Contracting State shall establish, in respect of aeroplanes over 5 700 kg and helicopters over 3 175 kg maximum certificated take-off mass, the type of information that is to be reported to its airworthiness authority by operators, organizations responsible for type design and maintenance organizations. Procedures for reporting this information shall also be established.	CAR 145.61(a), CAR Part 12.	Less protective or partially implemented or not implemented	Not specific in relation to helicopters. Not applicable to design organizations, in that New Zealand is not the State of Design for any aeroplanes over 5 700 kg or any helicopters.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5 Reference 5 Note	Note 1.— Until 4 November 2020, safety management provisions for organizations responsible for the type design or manufacture of aircraft are included in Annex 19. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).  Note 2.— As of 5 November 2020, safety management provisions for organizations responsible for the type design or manufacture of aircraft and for approved maintenance organizations are included in Annex 19. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).		Not Applicable		Note only, but CARs 100.3, 146.65, 148.65, and 145.65 apply respectively to the organisations listed, and will continue to do so beyond 5 November 2020.

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Chapter 6 Reference 6.1 Standard	CHAPTER 6. MAINTENANCE ORGANIZATION APPROVAL  Applicable as of 5 November 2020.	CAR Part 145.	No Difference		The SARPs in this chapter are already in effect via Part 145.
	6.1 Applicability  The Standards of this chapter are applicable to the approval of organizations involved in the maintenance of aircraft, engines, propellers and associated parts. Approval certificates issued before 5 November 2020 shall be amended before 5 November 2022 to ensure compliance with the requirements in 6.2.3.				
Chapter 6 Reference 6.2.1 Standard	6.2.1 The Contracting State concerned shall define appropriate requirements for the approval of a maintenance organization in accordance with the Standards of this chapter.  Note.— Guidance material on the approval of an approved maintenance organization is contained in the Airworthiness Manual (Doc 9760).	CAR Part 145.	No Difference		
Chapter 6 Reference 6.2.2 Standard	6.2.2 The issuance of a maintenance organization approval by a Contracting State shall be dependent upon the applicant demonstrating compliance with the applicable Standards of this chapter through compliance with appropriate requirements defined in accordance with 6.2.1 and relevant provisions contained in Annex 19 for such organizations.	CAR 145.9.	No Difference		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.2.3 Standard	6.2.3 The approval certificate shall contain at least the following information:  a) the issuing authority and the name, title and signature of the person issuing the certificate;  b) the maintenance organization's name and registered address;  c) the maintenance organization approval reference number;  d) the date of current issue;  e) in the case of certificates of limited duration, the expiration date;  f) the scope of approval, in relation to aircraft, component and/or specialized maintenance, and to the type of aircraft and components covered by the approval; and  g) the locations of the maintenance facilities, unless the information is included in a separate document referred to in the approval certificate.  Note.— Guidance material on the content of the approval certificate is contained in Doc 9760.		No Difference		Note: item b) registered address and item g) are contained in the organization's exposition required by rule 145.67.
Chapter 6 Reference 6.2.3.1	6.2.3.1 <b>Recommendation.</b> — The approval certificate should follow the template in the Appendix and contain the date of original issue if different from the date of current issue.		Different in character or other means of compliance	The certificate is issued in a slightly different format, and does not include address or contact details;	
Recommendation				the certificate is displayed on the holder's premises, so these are irrelevant.	

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Chapter 6 Reference 6.2.4 Standard	6.2.4 The continued validity of the approval shall depend upon the organization remaining in compliance with the appropriate requirements of 6.2.1 and 6.2.2.	CAR 145.17 and 145.101.	No Difference		
Chapter 6 Reference 6.2.5 Standard	6.2.5 The maintenance organization shall notify the Contracting State which issued the maintenance organization approval of any changes to the organization's scope of work, location or personnel nominated in accordance with this chapter.		No Difference		
Chapter 6 Reference 6.2.6 Standard	6.2.6 Where a Contracting State accepts, in whole or in part, a maintenance organization approval issued by another Contracting State, it shall establish a process for the recognition of such approval and successive changes. In such a case, the recognizing Contracting State shall build an adequate liaison with the Contracting State that initially issued the maintenance organization approval.	C	No Difference		New Zealand has bilateral agreements with certain other States.

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Chapter 6	6.3 Maintenance organization's procedures manual	CAR 145.59, 145.60,	No Difference		
Reference		145.61, and 145.67.			
6.3.1	6.3.1 The maintenance organization shall provide for the use and guidance of maintenance personnel concerned a				
Standard	procedures manual which may be issued in separate parts containing the following information:				
	a) a general description of the scope of work authorized under the organization's terms of approval;				
	b) a description of the organization's procedures and quality or inspection system in accordance with 6.4;				
	c) a general description of the organization's facilities;				
	d) names and duties of the person or persons required by 6.6.1 and 6.6.2;				
	e) a description of the procedures used to establish the competence of the maintenance personnel required by 6.6.4;				
	f) a description of the method used for the completion and retention of the maintenance records required by 6.7;				
	g) a description of the procedures for preparing the maintenance release and the circumstances under which the release is to be signed;				
	h) the personnel authorized to sign the maintenance release and the scope of their authorization;				
	i) a description, when applicable, of contracted activities;				
	j) a description, when applicable, of the additional				

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	procedures for complying with an operator's maintenance procedures and requirements;  k) a description of the procedures for complying with the information reporting requirements of 4.2.3.1 f) and 4.2.4 of this part;  l) a description of the procedure for receiving, assessing, amending and distributing within the maintenance organization all necessary airworthiness data from the organization responsible for the type design; and  m) a description of the procedures for implementing changes affecting the approval of the maintenance organization.				
Chapter 6 Reference 6.3.2 Standard	6.3.2 The maintenance organization shall ensure that the procedures manual is amended as necessary to keep the information contained therein up to date.	CAR 145.59(8).	No Difference		
Chapter 6 Reference 6.3.3 Standard	6.3.3 The maintenance organization shall furnish copies of all amendments to the procedures manual promptly to all organizations or persons to whom the manual has been issued.  Note.— Guidance material on the content of a	CAR 145.59(8).	No Difference		
Samuel u	maintenance organization's procedures manual is contained in Doc 9760.				

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Chapter 6 Reference 6.4.1 Standard	6.4 Maintenance procedures and quality assurance system  6.4.1 The maintenance organization shall establish procedures acceptable to the Contracting State granting the approval which ensure good maintenance practices and compliance with all relevant Standards prescribed in 6.2.1 and 6.2.2.	CAR 145.59, 145.60, 145.61, and 145.67.	No Difference		
Chapter 6 Reference 6.4.2 Standard	6.4.2 The maintenance organization shall ensure compliance with 6.4.1 by either establishing an independent quality assurance system to monitor compliance with, and adequacy of, the procedures, or by providing a system of inspection to ensure that all maintenance is properly performed.		No Difference		Part 145 organisations are required to have a safety management system; the previous requirement for a quality management system was superseded on 1 February 2018.
Chapter 6 Reference 6.5.1 Standard	6.5.1 The maintenance organization shall provide the appropriate facilities and working environments for the tasks to be performed.  Note.— Guidance material on requirements for approved maintenance organization facilities is contained in Doc 9760.	CAR 145.63.	No Difference		
Chapter 6 Reference 6.5.2 Standard	6.5.2 The maintenance organization shall have the necessary technical data, equipment, tools and material to perform the work for which it is approved.	CAR 145 55 and 145.59.	No Difference		

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Chapter 6 Reference 6.5.3 Standard	6.5.3 The maintenance organization shall ensure that storage conditions provide adequate security and prevent deterioration of, and damage to, stored items such as parts, equipment, tools and material.	CAR 145.53.	No Difference		
Chapter 6 Reference 6.6.1 Standard	6.6 Personnel  6.6.1 The maintenance organization shall nominate an accountable executive who, irrespective of other functions, is accountable on behalf of the organization.  Note.— Guidance material on the responsibilities of an accountable executive is contained in Doc 9760 and the Safety Management Manual (SMM) (Doc 9859).	CAR 145.51.	No Difference		
Chapter 6 Reference 6.6.2 Standard	6.6.2 The maintenance organization's accountable executive shall nominate a person or group of persons whose responsibilities include ensuring that the maintenance organization is in compliance with the requirements of 6.2.1 and 6.2.2.	CAR 145.51.	No Difference		
Chapter 6 Reference 6.6.3 Standard	6.6.3 The maintenance organization shall employ the necessary personnel to plan, perform, supervise, inspect and release the maintenance work to be performed.	CAR 145.51.	No Difference		

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Chapter 6 Reference 6.6.4 Standard	6.6.4 The maintenance organization shall establish the competence of maintenance personnel in accordance with procedures and to a level acceptable to the Contracting State granting the approval. If the person signing the maintenance release is a non-licensed person, the person shall meet the qualification requirements specified in Annex 1 — Personnel Licensing to sign a maintenance release.	\ \ /	No Difference		
Chapter 6 Reference 6.6.5 Standard	6.6.5 The maintenance organization shall ensure that all maintenance personnel receive initial and continuation training appropriate to their assigned tasks and responsibilities. The training programme established by the maintenance organization shall include training in knowledge and skills related to human performance, including coordination with other maintenance personnel and flight crew.  Note.— Guidance material to design training programmes to develop knowledge and skills in human performance can be found in the Human Factors Training Manual (Doc 9683).	CAR 145.51(c) and 145.60.	No Difference		
Chapter 6 Reference 6.7.1 Standard	6.7 Records  6.7.1 The maintenance organization shall retain detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.	CAR 145.63.	No Difference		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 6 Reference 6.7.2 Standard	6.7.2 The records required by 6.7.1 shall be kept for a minimum period of one year after the signing of the maintenance release.	CAR 145.63(4).	More Exacting or Exceeds	Five years.		
Chapter 6 Reference 6.7.3 Standard	6.7.3 Records kept in accordance with 6.7 shall be maintained in a form and format that ensures readability, security and integrity of the records at all times.  Note 1.— The form and format of the records may include, for example, paper records, film records, electronic records or any combination thereof.  Note 2.— Guidance material regarding electronic aircraft maintenance records is contained in Doc 9760.	CAR 145.63.	No Difference			
Chapter 6 Reference 6.8.1 Standard	6.8 Maintenance release  6.8.1 A maintenance release shall be completed and signed to certify that the maintenance work performed has been completed satisfactorily and in accordance with approved data and the procedure described in the maintenance organization's procedures manual.	CAR Part 43 Subpart C; CAR 91.619.	Different in character or other means of compliance	The term "release to service" is used, and the equivalent document is the Technical Log required by rule 91.619.		

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Chapter 6 Reference 6.8.2 Standard	6.8.2 A maintenance release shall be signed and include the following:  a) basic details of the maintenance carried out including detailed reference to the data used;  b) the date such maintenance was completed;  c) the identity of the approved maintenance organization; and  d) the identity of the person or persons signing the release.	CAR 91.619.	Different in character or other means of compliance	The term "release to service" is used, and the equivalent document is the Technical Log required by rule 91.619.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference		
Chapter 1 Reference 1.1.1 Standard	PART III. LARGE AEROPLANES  PART IIIA. AEROPLANES OVER 5 700 KG FOR WHICH APPLICATION FOR CERTIFICATION WAS SUBMITTED ON OR AFTER 13 JUNE 1960 BUT BEFORE 2 MARCH 2004	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate United States Federal Aviation Regulations (FARs).		
	Note.— The provisions of Part IIIA are the same as those contained in Part III of Annex 8, Ninth Edition (including Amendment 99), except for modified applicability clauses and cross-references.						
	CHAPTER 1. GENERAL						
	1.1 Applicability						
	1.1.1 The Standards of this part, except for those specified in 8.4, are applicable in respect of all aeroplanes designated in 1.1.3 that are of types of which the prototype was submitted to the appropriate national authorities for certification on or after 13 June 1960, but before 2 March 2004.						

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Chapter 1 Reference 1.1.2 Standard	1.1.2 The Standards specified in 8.4 are applicable in respect of all aeroplanes designated in 1.1.3 that are of types of which the prototype was submitted to the appropriate national authorities for certification on or after 22 March 1985, but before 2 March 2004.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 1 Reference 1.1.3 Standard	Practices which specify a different applicability, the Standards and Recommended Practices of this part shall apply to aeroplanes with a maximum certificated take-off mass greater than 5 700 kg and intended for the carriage of passengers or cargo or mail in international air navigation.  Note.— The following Standards do not include quantitative specifications comparable to those found in national airworthiness codes. In accordance with 1.2.1 of Part II, these Standards are to be supplemented by requirements established, adopted or accepted by Contracting States.	CAR Part 21, Appendix C.	Less protective or partially implemented or not implemented	(Notified by the United States):- Effective 17 October 1979, the United States certificated certain aeroplanes at weights in excess of 5 700 kg (12 566 lb) that do not fully meet the ICAO Airworthiness Standards of Part III. The Airworthiness Certificate of aeroplanes that do not meet ICAO Standards will be endorsed as follows: "This aeroplane at weights in excess of 5 700 kg does not meet the airworthiness requirements of ICAO, as prescribed by Annex 8 to the Convention on International Civil Aviation."	Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 1 Reference 1.1.4 Standard	1.1.4 The level of airworthiness defined by the appropriate parts of the comprehensive and detailed national code referred to in 1.2.1 of Part II for the aeroplanes designated in 1.1.3 shall be at least substantially equivalent to the overall level intended by the broad Standards of this part.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Chapter 1 Reference 1.1.5 Standard	1.1.5 Unless otherwise stated, the Standards apply to the complete aeroplane including its powerplant, systems and equipment.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 1 Reference 1.2 Standard	1.2 Number of engines  The aeroplane shall have not less than two engines.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 1 Reference 1.3.1 Standard	1.3.1 Limiting conditions shall be established for the aeroplane, its powerplant and its equipment (see 9.2). Compliance with the Standards of this part shall be established assuming that the aeroplane is operated within the limitations specified. The limitations shall be sufficiently removed from any condition(s) prejudicial to the safety of the aeroplane to render the likelihood of accidents arising therefrom extremely remote.  Note.— Guidance material concerning the expression "extremely remote" is contained in the Airworthiness Manual (Doc 9760).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Chapter 1 Reference 1.3.2 Standard	1.3.2 Limiting ranges of any parameter whose variation may compromise the safe operation of the aeroplane, e.g. mass, centre of gravity location, load distribution, speeds, and altitude or pressure-altitude, shall be established within which compliance with all the pertinent Standards in this part is shown, except that combinations of conditions which are fundamentally impossible to achieve need not be considered.  Note 1.— The maximum operating mass and centre of gravity limits may vary, for example, with each altitude and with each separate operating condition, e.g. take-off, en route, landing.  Note 2.— The following items, for instance, may be considered as basic aeroplane limitations:  — maximum certificated take-off mass;  — maximum certificated take-off mass;  — maximum certificated landing mass;  — maximum certificated zero fuel mass; and  — most forward and rearward centre of gravity positions in various configurations (take-off, en route, landing).  Note 3.— Maximum operating mass may be limited by the application of noise certification Standards (see Annex 16 — Environmental Protection, Volume 1 — Aircraft Noise, and Annex 6 — Operation of Aircraft, Part 1 — International Commercial Air Transport — Aeroplanes and Part 11 — International General Aviation — Aeroplanes).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference		
Chapter 1 Reference 1.4 Standard	1.4 Unsafe features and characteristics  Under all anticipated operating conditions, the aeroplane shall not possess any feature or characteristic that renders it unsafe.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.		
Chapter 1 Reference 1.5.1 Standard	1.5.1 Compliance with the appropriate airworthiness requirements shall be based on evidence from tests, calculations, or calculations based on tests, provided that in each case the accuracy achieved will ensure a level of airworthiness equal to that which would be achieved were direct tests conducted.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs. Note: the United States also uses service experience and equivalent safety findings as a basis for finding compliance with the appropriate airworthiness requirements.		
Chapter 1 Reference 1.5.2 Standard	1.5.2 The tests of 1.5.1 shall be such as to provide reasonable assurance that the aeroplane, and its components, systems and equipment, are reliable and function correctly under the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.1.1	CHAPTER 2. FLIGHT	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	2.1.1 Compliance with the Standards prescribed in this chapter shall be established by flight or other tests conducted upon an aeroplane or aeroplanes of the type for which a Certificate of Airworthiness is sought, or by calculations based on such tests, provided that the results obtained by calculations are equal in accuracy to, or conservatively represent, the results of direct testing.				
Chapter 2 Reference 2.1.2 Standard	2.1.2 Compliance with each Standard shall be established for all applicable combinations of aeroplane mass and centre of gravity position, within the range of loading conditions for which certification is sought.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.1.3 Standard	2.1.3 Where necessary, appropriate aeroplane configurations shall be established for the determination of performance in the various stages of flight and for the investigation of the aeroplane's flying qualities.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2	2.2 Performance	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA	
Reference		• ••			is by incorporation by	
2.2.1.1	2.2.1 General				reference in CAR Part 21 of appropriate FARs.	
Standard	2.2.1.1 Sufficient data on the performance of the aeroplane shall be determined and scheduled in the flight manual to provide operators with the necessary information for the purpose of determining the total mass of the aeroplane on the basis of the values, peculiar to the proposed flight, of the relevant operational parameters, in order that the flight may be made with reasonable assurance that a safe minimum performance for that flight will be achieved.					
Chapter 2	2.2.1.2 Achieving the performance scheduled for the	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA	
Reference	aeroplane shall take into consideration human performance				is by incorporation by	
2.2.1.2	and in particular shall not require exceptional skill or alertness on the part of the flight crew.				reference in CAR Part 21 of appropriate FARs.	
Standard	Note.— Guidance material on human performance can be found in the Human Factors Training Manual (Doc 9683).					
Chapter 2	2.2.1.3 The scheduled performance of the aeroplane	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA	
Reference	shall be consistent with compliance with 1.3.1 and with the				is by incorporation by	
2.2.1.3	operation in logical combinations of those of the aeroplane's systems and equipment, the operation of which may affect performance.				reference in CAR Part 21 of appropriate FARs.	
Standard						

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Chapter 2	2.2.2 Minimum performance	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA
Reference		***			is by incorporation by
2.2.2	At the maximum masses scheduled (see 2.2.3) for take-off and for landing as functions of the aerodrome elevation or pressure-altitude either in the standard atmosphere or in				reference in CAR Part 21 of appropriate FARs.
Standard	specified still air atmospheric conditions, and, for seaplanes, in specified conditions of smooth water, the aeroplane shall be capable of accomplishing the minimum performances specified in 2.2.2.1 and 2.2.2.2, respectively, not considering obstacles or runway or water run length.  Note.— This Standard permits the maximum take-off mass and maximum landing mass to be scheduled in the aeroplane flight manual against, for example:  — aerodrome elevation, or — pressure-altitude at aerodrome level, or  — pressure-altitude and atmospheric temperature at aerodrome level,  so as to be readily usable when applying the national code on aeroplane performance operating limitations.				

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Annex Reference		AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2	2.2.2.1	Take-off	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA
Reference						is by incorporation by
2.2.2.1 Standard	a)	The aeroplane shall be capable of taking off assuming the critical engine to fail (see 2.2.3), the remaining engines being operated within their take-off power limitations.				reference in CAR Part 21 of appropriate FARs.
	b)	After the end of the period during which the take-off power may be used, the aeroplane shall be capable of continuing to climb, with the critical engine inoperative and the remaining engine(s) operated within their maximum continuous power limitations, up to a height that it can maintain and at which it can carry out a circuit of the aerodrome.  The minimum performance at all stages of take-off and climb shall be sufficient to ensure that under conditions of operation departing slightly from the idealized conditions for which data is scheduled (see 2.2.3), the departure from the scheduled values is not disproportionate.				
Chapter 2	2.2.2.2	Landina	CAR Rest 21 Acres 11 C	N. D.C.		Consultance Ale Designation
Reference	2.2.2.2	Landing	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by
2.2.2.2 Standard	a)	Starting from the approach configuration and with the critical engine inoperative, the aeroplane shall be capable, in the event of a missed approach, of continuing the flight to a point from which a fresh				reference in CAR Part 21 of appropriate FARs.
Standalu	b)	approach can be made.  Starting from the landing configuration, the aeroplane shall be capable, in the event of a balked landing, of				
		making a climb-out, with all engines operating.				

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Chapter 2 Reference 2.2.3 Standard	Performance data shall be determined and scheduled in the flight manual so that its application by means of the operating rules to which the aeroplane is to be operated in accordance with 5.2 of Annex 6, Part I, will provide a safe relationship between the performance of the aeroplane and the aerodromes and routes on which it is capable of being operated. Performance data shall be determined and scheduled for the following stages for the ranges of mass, altitude or pressure-altitude, wind velocity, gradient of the take-off and landing surface for landplanes; water surface conditions, density of water and strength of current for seaplanes; and for any other operational variables for which the aeroplane is to be certificated.		Less protective or partially implemented or not implemented	(Notified by the United States):- This ICAO provision requires performance data to be scheduled for ranges of gradient of the landing surface for landplanes and ranges of water surface conditions, water density and current strength for seaplanes. For landplanes, the United States requires the landing distance to be determined only on a level runway. For seaplanes, the United States requires the landing distance on water to be determined only on smooth water. Operational take-off and landing distance margins are applied where appropriate by United States operational regulations and guidance.	Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.3.1 Standard	2.2.3.1 <i>Take-off.</i> The take-off performance data shall include the accelerate-stop distance and the take-off path.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.2.3.1.1 Standard	2.2.3.1.1 Accelerate-stop distance. The accelerate-stop distance shall be the distance required to accelerate and stop, or, for a seaplane to accelerate and come to a satisfactorily low speed, assuming the critical engine to fail suddenly at a point not nearer to the start of the take-off than that assumed when determining the take-off path (see 2.2.3.1.2).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.3.1.2 Standard	2.2.3.1.2 Take-off path. The take-off path shall comprise the ground or water run, initial climb and climb-out, assuming the critical engine to fail suddenly during the take-off (see 2.2.3.1.1). The take-off path shall be scheduled up to a height that the aeroplane can maintain and at which it can carry out a circuit of the aerodrome. The climb-out shall be made at a speed not less than the take-off safety speed as determined in accordance with 2.3.1.3.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.3.2 Standard	2.2.3.2 En route. The en-route climb performance shall be the climb (or descent) performance with the aeroplane in the en-route configuration with:  a) the critical engine inoperative; and b) the two critical engines inoperative in the case of aeroplanes having three or more engines.  The operating engine(s) shall not exceed maximum continuous power.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.2.3.3 Standard	2.2.3.3 Landing. The landing distance shall be the horizontal distance traversed by the aeroplane from a point on the approach flight path at a selected height above the landing surface to the point on the landing surface at which the aeroplane comes to a complete stop, or, for a seaplane, comes to a satisfactorily low speed. The selected height above the landing surface and the approach speed shall be appropriately related to operating practices. This distance may be supplemented by such distance margin as may be necessary; if so, the selected height above the landing surface, the approach speed and the distance margin shall be appropriately interrelated and shall make provision for both normal operating practices and reasonable variations therefrom.  Note.— If the landing distance includes the distance margin specified in this Standard, it is not necessary to allow for the expected variations in the approach and landing techniques in applying 5.2.11 of Annex 6, Part I.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3 Standard	2.3 Flying qualities  The aeroplane shall comply with the Standards of 2.3 at all altitudes up to the maximum anticipated altitude relevant to the particular requirement in all temperature conditions relevant to the altitude in question and for which the aeroplane is approved.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.3.1 Standard	2.3.1 Controllability  The aeroplane shall be controllable and manoeuvrable under all anticipated operating conditions, and it shall be possible to make smooth transitions from one flight condition to another (e.g. turns, sideslips, changes of engine power, changes of aeroplane configurations) without requiring exceptional skill, alertness or strength on the part of the pilot even in the event of failure of any engine. A technique for safely controlling the aeroplane shall be established for all stages of flight and aeroplane configurations for which performance is scheduled.  *Note.*— This Standard is intended, among other things, to relate to operation in conditions of no appreciable atmospheric turbulence and also to ensure that there is no undue deterioration of the flying qualities in turbulent air.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.1.1 Standard	2.3.1.1 Controllability on the ground (or water). The aeroplane shall be controllable on the ground (or on the water) during taxiing, take-off and landing under the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.1.2 Standard	2.3.1.2 Controllability during take-off. The aeroplane shall be controllable in the event of sudden failure of the critical engine at any point in the take-off, when the aeroplane is handled in the manner associated with the scheduling of take-off paths and accelerate-stop distances.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.3.1.3 Standard	2.3.1.3 Take-off safety speed. The take-off safety speeds assumed when the performance of the aeroplane (after leaving the ground or water) during the take-off is determined shall provide an adequate margin above the stall and above the minimum speed at which the aeroplane remains controllable after sudden failure of the critical engine.		No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.2 Standard	2.3.2 Trim  The aeroplane shall have such trim and other characteristics as to ensure that the demands made on the pilot's attention and ability to maintain a desired flight condition are not excessive when account is taken of the stage of flight at which these demands occur and their duration. This shall apply both in normal operation and in the conditions associated with the failure of one or more engines for which performance characteristics are established.		No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.3 Standard	2.3.3 Stability  The aeroplane shall have such stability in relation to its other flight characteristics, performance, structural strength and most probable operating conditions (e.g. aeroplane configurations and speed ranges) as to ensure that demands made on the pilot's powers of concentration are not excessive when the stage of the flight at which these demands occur and their duration are taken into account. The stability of the aeroplane shall not, however, be such that excessive demands are made on the pilot's strength or that the safety of the aeroplane is prejudiced by lack of manoeuvrability in emergency conditions.		No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.3.4.1 Standard	2.3.4 Stalling  2.3.4.1 Stall warning. When the aeroplane approaches a stall both in straight and turning flight with all engines operating and with one engine inoperative, a clear and distinctive stall warning shall be apparent to the pilot with the aeroplane in all permissible configurations and powers, except those which are not considered to be essential for safe flying. The stall warning and other characteristics of the aeroplane shall be such as to enable the pilot to arrest the development of the stall after the warning begins and, without altering the engine power, to maintain full control of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.4.2 Standard	2.3.4.2 Behaviour following a stall. In any configuration and power in which it is considered that the ability to recover from a stall is essential, the behaviour of the aeroplane following a stall shall not be so extreme as to make difficult a prompt recovery without exceeding the airspeed or strength limitations of the aeroplane. It shall be acceptable to throttle back the operating engines during recovery from the stall.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.4.3 Standard	2.3.4.3 Stalling speeds. The stalling speeds or minimum steady flight speeds in configurations appropriate for each stage of flight (e.g. take-off, en route, landing) shall be established. One of the values of the power used in establishing the stalling speeds shall be not more than that necessary to give zero thrust at a speed just above the stall.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.3.5 Standard	It shall be demonstrated by suitable tests that all parts of the aeroplane are free from flutter and excessive vibration in all aeroplane configurations under all speed conditions within the operating limitations of the aeroplane (see 1.3.2). There shall be no buffeting severe enough to interfere with control of the aeroplane, to cause structural damage or to cause excessive fatigue to the flight crew.  Note.— Buffeting as a stall warning is considered desirable and discouragement of this type of buffeting is not intended.		No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.1 Standard	CHAPTER 3. STRUCTURE  3.1 General  The Standards of this chapter apply to the aeroplane structure consisting of all portions of the aeroplane, the failure of which would seriously endanger the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 3 Reference 3.1.1 Standard	3.1.1 Mass and mass distribution  Unless otherwise stated, all structural Standards shall be complied with when the mass is varied over the applicable range and is distributed in the most adverse manner, within the operating limitations on the basis of which certification is sought.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.1.2 Standard	3.1.2 Limit loads  Except as might be otherwise qualified, the external loads and the corresponding inertia loads, or resisting loads obtained for the various loading conditions prescribed in 3.3, 3.4 and 3.5 shall be considered as limit loads.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.1.3 Standard	3.1.3 Strength and deformation  In the various loading conditions prescribed in 3.3, 3.4 and 3.5, no part of the aeroplane structure shall sustain detrimental deformation at any load up to and including the limit load, and the aeroplane structure shall be capable of supporting the ultimate load.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 3 Reference 3.2.1	3.2. Airspeeds  3.2.1 Design airspeeds	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	Design airspeeds shall be established for which the aeroplane structure is designed to withstand the corresponding manoeuvring and gust loads in accordance with 3.3. In establishing the design airspeeds, consideration shall be given to the following speeds:  a) VA, the design manoeuvring speed;  b) VB, the speed at which the maximum vertical gust velocity assumed in accordance with 3.3.2 can be withstood;  c) VC, a speed not expected to be exceeded in normal cruising flight taking into account possible effects of upsets when flying in turbulent conditions;  d) VD, maximum dive speed, sufficiently greater than the speed in c), to make it unlikely that such a design speed would be exceeded as a result of inadvertent speed increases in the anticipated operating conditions, taking into account the flying qualities and other characteristics of the aeroplane;  e) VE1 to VEn, maximum speeds at which flaps and landing gears may be extended or other configuration changes be made.  The speeds VA, VB, VC, and VE in a), b), c) and e) shall be sufficiently greater than the stalling speed of the aeroplane to safeguard against loss of control in turbulent air.				

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Chapter 3 Reference 3.2.2 Standard	3.2.2 Limiting airspeeds  Limiting airspeeds, based on the corresponding design airspeeds with safety margins, where appropriate, in accordance with 1.3.1, shall be included in the aeroplane flight manual as part of the operating limitations (see 9.2.2).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.3 Standard	3.3 Flight loads  The flight loading conditions of 3.3.1, 3.3.2 and 3.5 shall be considered for the range of mass and mass distributions prescribed in 3.1.1 and at airspeeds established in accordance with 3.2.1. Asymmetrical as well as symmetrical loading shall be taken into account. The air, inertia and other loads resulting from the specified loading conditions shall be distributed so as to approximate actual conditions closely or to represent them conservatively.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.3.1 Standard	3.3.1 Manoeuvring loads  Manoeuvring loads shall be computed on the basis of manoeuvring load factors appropriate to the manoeuvres permitted by the operating limitations. They shall not be less than values that experience indicates will be adequate for the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 3 Reference 3.3.2 Standard	3.3.2 Gust loads  Gust loads shall be computed for vertical and horizontal gust velocities and gradients that statistics or other evidence indicates will be adequate for the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.4 Standard	3.4 Ground and water loads  The structure shall be able to withstand all the loads due to the reactions of the ground and water surface that are likely to arise during taxiing, take-off and landing.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.4.1 Standard	3.4.1 Landing conditions  The landing conditions at the design take-off mass and at the design landing mass shall include such symmetrical and asymmetrical attitudes of the aeroplane at ground or water contact, such velocities of descent, and such other factors affecting the loads imposed upon the structure as might be present in the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 3 Reference 3.5 Standard	3.5 Miscellaneous loads  In addition to or in conjunction with the manoeuvring and gust loads and with the ground and water loads, consideration shall be given to all other loads (flight control loads, cabin pressures, effects of engine operation, loads due to changes of configuration, etc.) that are likely to occur in the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.6 Standard	3.6 Flutter, divergence and vibration  The aeroplane structure shall be designed to be free from flutter, structural divergence (i.e. unstable structural distortion due to aerodynamic loading), and loss of control due to structural deformation, at speeds within and sufficiently beyond the operating limitations to comply with 1.3.1. Adequate strength shall be provided to withstand the vibration and buffeting that might occur in the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 3 Reference 3.7 Standard	3.7 Fatigue strength  The strength and fabrication of the aeroplane shall be such as to ensure that the probability of disastrous fatigue failure of the aeroplane's structure under repeated loads and vibratory loads in the anticipated operating conditions is extremely remote.  Note.— Guidance material concerning the expression "extremely remote" is contained in the Airworthiness Manual (Doc 9760).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1	CHAPTER 4. DESIGN AND CONSTRUCTION	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	Details of design and construction shall be such as to give reasonable assurance that all aeroplane parts will function effectively and reliably in the anticipated operating conditions. They shall be based upon practices that experience has proven to be satisfactory or that are substantiated by special tests or by other appropriate investigations or both. They shall also consider human factors principles.  *Note.*— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc 9683).				

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Chapter 4 Reference 4.1.1 Standard	4.1.1 Substantiating tests  The functioning of all moving parts essential to the safe operation of the aeroplane shall be demonstrated by suitable tests in order to ensure that they will function correctly under all operating conditions for such parts.		No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.2 Standard	4.1.2 Materials  All materials used in parts of the aeroplane essential for its safe operation shall conform to approved specifications. The approved specifications shall be such that materials accepted as complying with the specifications will have the essential properties assumed in the design.		No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.3 Standard	4.1.3 Manufacturing methods  The methods of manufacturing and assembly shall be such as to produce a consistently sound structure which shall be reliable with respect to maintenance of strength in service.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.4 Standard	4.1.4 Protection  The structure shall be protected against deterioration or loss of strength in service due to weathering, corrosion, abrasion or other causes, which could pass unnoticed, taking into account the maintenance the aeroplane will receive.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.1.5 Standard	4.1.5 Inspection provisions  Adequate provision shall be made to permit any necessary examination, replacement or reconditioning of parts of the aeroplane that require such attention, either periodically or after unusually severe operations.		No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4	A1 ( Southern Josian Southern	GARD 121 A II G	N D:00		G II II D IIII
	4.1.6 Systems design features	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA
Reference	Chariel consideration shall be given to design features that				is by incorporation by
4.1.6	Special consideration shall be given to design features that affect the ability of the flight crew to maintain controlled flight.				reference in CAR Part 21 of
	This shall include at least the following:				appropriate FARs.
Standard	This shall include at least the following.				
Standard	<ul> <li>a) Controls and control systems. The design of the controls and control systems shall be such as to minimize the possibility of jamming, inadvertent operation and unintentional engagement of control surface locking devices.</li> <li>b) System survivability.</li> <li>1) For aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60 and for which the application for certification was submitted on or after 12 March 2000, aeroplane systems shall be designed, arranged and physically separated to maximize the potential for continued safe flight and landing after any event resulting in damage to the aeroplane structure or systems.</li> <li>2) Recommendation.— For aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg but not exceeding 45 500 kg and for which the application for certification was submitted on or after 12 March 2000, aeroplane systems should be designed, arranged and physically separated to maximize the potential for continued safe flight and landing after any event resulting in damage to the aeroplane structure or systems.</li> </ul>				
	c) Crew environment. The design of the flight crew compartment shall be such as to minimize the				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	possibility of incorrect or restricted operation of the controls by the crew, due to fatigue, confusion or interference. Consideration shall be given at least to the following: layout and identification of controls and instruments, rapid identification of emergency situations, sense of controls, ventilation, heating and noise.				
	d) Pilot vision. The arrangement of the pilot compartment shall be such as to afford a sufficiently extensive, clear and undistorted field of vision for the safe operation of the aeroplane, and to prevent glare and reflections that would interfere with the pilot's vision. The design features of the pilot windshield shall permit, under precipitation conditions, sufficient vision for the normal conduct of flight and for the execution of approaches and landings.				
	e) Provision for emergencies. Means shall be provided which shall either automatically prevent, or enable the flight crew to deal with, emergencies resulting from foreseeable failures of equipment and systems, the failure of which would endanger the aeroplane. Reasonable provisions shall be made for continuation of essential services following engine or system failures to the extent that such failures are catered for in the performance and operating limitations specified in the Standards in this Annex and in Annex 6, Parts I and II.				
	f) Fire precautions. The design of the aeroplane and the materials used in its manufacture, including cabin interior furnishing materials replaced during major refurbishing, shall be such as to minimize the possibility of in-flight and ground fires and also to minimize the production of smoke and toxic gases in the event of a fire. Means shall be provided to				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	contain or to detect and extinguish such fires as might occur in such a way that no additional danger to the aeroplane is caused.				
	<ul> <li>g) Fire suppression. For aeroplanes for which the application for certification was submitted on or after 12 March 2000, cargo compartment fire suppression systems, including their extinguishing agents, shall be designed so as to take into account a sudden and extensive fire such as could be caused by an explosive or incendiary device or dangerous goods.</li> <li>h) Incapacitation of occupants.</li> <li>1) For aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60 and for which the application for certification was submitted on or after 12 March 2000 design presentings shall</li> </ul>				
	or after 12 March 2000, design precautions shall be taken to protect against possible instances of cabin depressurization and against the presence of smoke or other toxic gases, including those caused by explosive or incendiary devices or dangerous goods, which could incapacitate the occupants of the aeroplane.				
	2) Recommendation.— For aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg but not exceeding 45 500 kg and for which the application for certification was submitted on or after 12 March 2000, design precautions should be taken to protect against possible instances of cabin depressurization and against the presence of smoke or other toxic gases, including those caused by explosive or incendiary devices or dangerous goods, which could incapacitate the occupants				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	<ul> <li>i) Protection of the flight crew compartment from smoke and fumes.</li> <li>1) For aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60 and for which the application for certification was submitted on or after 12 March 2000, means shall be provided to minimize entry into the flight crew compartment of smoke, fumes and noxious vapours generated by an explosion or fire on the aeroplane.</li> <li>2) Recommendation.— For aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg but not exceeding 45 500 kg and for which the application for certification was submitted on or after 12 March 2000, means should be provided to minimize entry into the flight crew compartment of smoke, fumes and noxious vapours generated by an explosion or fire on the aeroplane.</li> </ul>				
Chapter 4 Reference 4.1.7.1 Standard	4.1.7 Emergency landing provisions  4.1.7.1 Provisions shall be made in the design of the aeroplane to protect the occupants, in the event of an emergency landing, from fire and from the direct effects of deceleration forces as well as from injuries arising from the effect of deceleration forces on the aeroplane's interior equipment.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 4 Reference 4.1.7.2 Standard	4.1.7.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.7.3 Standard	4.1.7.3 The interior layout of the cabin and the position and number of emergency exits, including the means of locating and illuminating the escape paths and exits, shall be such as to facilitate rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.7.4 Standard	4.1.7.4 On aeroplanes certificated for ditching conditions, provisions shall be made in the design to give maximum practicable assurance that safe evacuation from the aeroplane of passengers and crew can be executed in case of ditching.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.8 Standard	Adequate provisions shall be made in the design to minimize the risk that ground-handling operations (e.g. towing, jacking) may cause damage, which could pass unnoticed, to the parts of the aeroplane essential for its safe operation. The protection that any limitations and instructions for such operations might provide may be taken into account.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

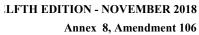
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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5 Reference 5.1 Standard	CHAPTER 5. ENGINES  5.1 Scope  The Standards of this chapter shall apply to engines of all types that are used on the aeroplane as primary propulsion units.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.2 Standard	5.2 Design, construction and functioning  The engine complete with accessories shall be designed and constructed so as to function reliably within its operating limitations under the anticipated operating conditions when properly installed in the aeroplane in accordance with Chapter 7 and, if applicable, fitted with a suitable propeller.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3 Standard	5.3 Declared ratings, conditions and limitations  The power ratings and the conditions of the atmosphere upon which they are based and all operating conditions and limitations, which are intended to govern the operation of the engine shall be declared.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5	5.4 Tests	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA
Reference 5.4	An engine of the type shall complete satisfactorily such tests as are necessary to verify the validity of the declared ratings, conditions and limitations and to ensure that it will operate				is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	satisfactorily and reliably. The tests shall include at least the following:				
	a) Power calibration. Tests shall be conducted to establish the power or thrust characteristics of the engine when new and also after the tests in b) and c). There shall be no excessive decrease in power at the conclusion of all the tests specified.				
	b) Operation. Tests shall be conducted to ensure that starting, idling, acceleration, vibration, overspeeding and other characteristics are satisfactory and to demonstrate adequate margins of freedom from detonation, surge or other detrimental conditions as may be appropriate to the particular type engine.				
	c) Endurance. Tests of sufficient duration shall be conducted at such powers, thrust, speeds and other operating conditions as are necessary to demonstrate reliability and durability of the engine. They shall also include operation under conditions in excess of the declared limits to the extent that such limitations might be exceeded in actual service.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.1 Standard	CHAPTER 6. PROPELLERS  6.1 Scope  The Standards of this chapter shall apply to propellers of all types.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.2 Standard	6.2 Design, construction and functioning  The propeller assembly complete with accessories shall be designed and constructed so as to function reliably within its operating limitations under the anticipated operating conditions when properly fitted to the engine and installed in the aeroplane in accordance with Chapter 7.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.3 Standard	6.3 Declared ratings, conditions and limitations  The power ratings and all operating conditions and limitations which are intended to govern the operation of the propeller shall be declared.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6	6.4 Tests	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA
Reference		Criterate 21, ripponant c.	The Billerence		is by incorporation by
6.4	A propeller of the type shall complete satisfactorily such tests as are necessary to ensure that it will operate satisfactorily and reliably within the declared ratings, conditions and limitations. The tests shall include at least the following:				reference in CAR Part 21 of appropriate FARs.
Standard	limitations. The tests shall include at least the following:				
	<ul> <li>a) Operation. Tests shall be conducted to ensure that strength vibration and overspeeding characteristics are satisfactory and to demonstrate proper and reliable functioning of pitch changing and control mechanisms.</li> <li>b) Endurance. Tests of sufficient duration shall be conducted at such powers, speeds and other operating conditions as are necessary to demonstrate reliability and durability of the propeller.</li> </ul>				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.1.1 Standard	CHAPTER 7. POWERPLANT INSTALLATION  7.1 General  7.1.1 Applicable Standards	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7	The powerplant installation shall comply with the Standards of Chapter 4 and with the Standards of this chapter.				
Reference 7.1.2 Standard	7.1.2 Compliance with engine and propeller limitations  The powerplant installation shall be so designed that the engines and propellers (if applicable) are capable of being used in the anticipated operating conditions. In conditions established in the aeroplane flight manual, the aeroplane shall be capable of being operated without exceeding the limitations established for the engines and propellers in accordance with Chapters 5, 6 and this chapter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.1.3 Standard	7.1.3 Control of engine rotation  In those installations where continued rotation of a failed engine would increase the hazard of fire or of a serious structural failure, means shall be provided for the crew to stop the rotation of the engine in flight or to reduce it to a safe level.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 7 Reference 7.1.4 Standard	7.1.4 Engine restarting  Means shall be provided for restarting an engine in flight at altitudes up to a declared maximum altitude.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 7 Reference 7.2.1 Standard	7.2.1 Independence of engines  The powerplant shall be arranged and installed so that each engine together with its associated systems is capable of being controlled and operated independently from the others and so that there is at least one arrangement of the powerplant and systems in which any failure, unless the probability of its occurrence is extremely remote, cannot result in a loss of more power than that resulting from complete failure of the critical engine.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 7 Reference 7.2.2 Standard	7.2.2 Propeller vibration  The propeller vibration stresses shall be determined and shall not exceed values that have been found safe for operation within the operating limitations established for the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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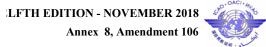
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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.2.3 Standard	7.2.3 Cooling  The cooling system shall be capable of maintaining powerplant temperatures within the established limits (see 7.1.2) at ambient air temperatures up to the maximum air temperature appropriate to the intended operation of the aeroplane. The maximum and, if necessary, minimum ambient air temperature for which the powerplant has been established as being suitable shall be scheduled in the aeroplane flight manual.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.4 Standard	7.2.4 Associated systems  The fuel, oil, air induction and other systems associated with the powerplant shall be capable of supplying each engine in accordance with its established requirements, under all conditions affecting the functioning of the systems (e.g. engine power, aeroplane attitudes and accelerations, atmospheric conditions, fluid temperatures) within the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7	7.2.5 Fire protection	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA
Reference		· • • • • • • • • • • • • • • • • • • •			is by incorporation by
7.2.5	For regions of the powerplant where the potential fire hazards are particularly serious because of the proximity of ignition				reference in CAR Part 21 of appropriate FARs.
Standard	sources to combustible materials, the following shall apply in addition to the general Standard of 4.1.6 e).				
	<ul> <li>a) Isolation. Such regions shall be isolated by fire-resisting material from other regions of the aeroplane where the presence of fire would jeopardize continued flight, taking into account the probable points of origin and paths of propagation of fire.</li> <li>b) Flammable fluids. Flammable fluid system components located in such regions shall be capable of containing the fluid when exposed to fire conditions. Means shall be provided for the crew to shut off the flow of flammable fluids into such regions if a fire occurs.</li> <li>c) Fire detection. A sufficient number of fire detectors shall be provided and located to ensure rapid detection of any fire that might occur in such regions.</li> <li>d) Fire extinguishment. Such regions shall be provided with a fire extinguisher system capable of extinguishing any fire likely to occur therein, unless the degree of isolation, quantity of combustibles, fire resistance of the structure and other factors are such that any fire likely to occur in the region would not jeopardize the safety of the aeroplane.</li> </ul>				

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Annex Reference  AIRWORTHINESS OF AIR  Standard or Recommender		State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8 Reference 8.1  Standard  8.1 Required instruments and The aeroplane shall be provided with and equipment necessary for the aeroplane in the anticipated operating include the instruments and equipment the crew to operate the aeroplane limitations. Instruments and equipment human factors principles.  Note 1.— Instruments and equipment human factors principles.  Note 1.— Instruments and equipment human recessary for the issuance Airworthiness are prescribed in Annex particular circumstances or on particular known for the instruments and principles can be found in the Hamanual (Doc 9683).	nd equipment  the approved instruments safe operation of the conditions. These shall not necessary to enable within its operating to design shall observe the ment additional to the energy of a Certificate of 6, Parts I and II, for citinds of routes.  on human factors	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 8  Reference 8.2  Instrument and equipment installations Standards of Chapter 4.		CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standards of Chapter 4.					

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8	8.3 Safety and survival equipment	CAR 91.523.	No Difference		
Reference	success and success equipment	C/ARC /1.323.	100 Difference		
8.3	Prescribed safety and survival equipment that the crew or passengers are expected to use or operate at the time of an emergency shall be reliable, readily accessible and easily				
Standard	identified, and its method of operation shall be plainly marked.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8	8.4 Navigation lights and anti-collision lights*	CAR Part 21, Appendix C;	No Difference		Compliance with Part IIIA
Reference		(CAR 91.511).			is by incorporation by
8.4.1	8.4.1 The lights required by Annex 2 — <i>Rules of the Air</i> to be displayed by aeroplanes in flight or operating on the movement area of an aerodrome shall have intensities,				reference in CAR Part 21 of appropriate FARs.
Standard	ninovement area of all aerodrome shall have intensities, colours, fields of coverage and other characteristics such that they furnish the pilot of another aircraft or personnel on the ground with as much time as possible for interpretation and for subsequent manoeuvre necessary to avoid a collision. In the design of such lights, due account shall be taken of the conditions under which they may reasonably be expected to perform these functions.  **Note 1.— It is likely that lights will be viewed against a variety of backgrounds, such as typical city lighting, clear starry sky, moonlit water and daytime conditions of low background luminance. Furthermore, collision risk situations are most likely to arise in terminal control areas in which aircraft are manoeuvring in the intermediate and lower flight levels at closing speeds that are unlikely to exceed 900 km/h (500 kt).  **Note 2.— Detailed technical specifications for exterior lights for aeroplanes can be found in the Airworthiness Manual (Doc 9760).  **Please refer to 1.1.2 of this part.				

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Standard or Recommended Practice  8.4.2 Lights shall be installed in aeroplanes so as to minimize the possibility that they will:  a) adversely affect the satisfactory performance of the flight crews' duties; or  b) subject an outside observer to harmful dazzle.  Note.— In order to avoid the effects mentioned in 8.4.2, will be necessary in some cases to provide means whereby the pilot can switch off or reduce the intensity of the flashing	State Legislation, Regulation or Document Reference  CAR Part 21, Appendix C.	Level of implementation of SARP's  No Difference	Text of the difference to be notified to ICAO	Comments including the reason for the difference  Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
<ul> <li>a) adversely affect the satisfactory performance of the flight crews' duties; or</li> <li>b) subject an outside observer to harmful dazzle.</li> <li>Note.— In order to avoid the effects mentioned in 8.4.2, will be necessary in some cases to provide means whereby</li> </ul>	CAR Part 21, Appendix C.	No Difference		is by incorporation by reference in CAR Part 21 of
ghts.				
CHAPTER 9. OPERATING LIMITATIONS AND INFORMATION  9.1 General  The operating limitations within which compliance with the tandards of this Annex is determined, together with any other information necessary to the safe operation of the aeroplane, hall be made available by means of an aeroplane flight nanual, markings and placards, and such other means as may affectively accomplish the purpose. The limitations and information shall include at least those prescribed in 9.2, 9.3 and 9.4.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
tan nfor hall nan ffec	9.1 General  operating limitations within which compliance with the dards of this Annex is determined, together with any other remaining necessary to the safe operation of the aeroplane, I be made available by means of an aeroplane flight ual, markings and placards, and such other means as may entively accomplish the purpose. The limitations and remaining shall include at least those prescribed in 9.2, 9.3	AND INFORMATION  9.1 General  operating limitations within which compliance with the dards of this Annex is determined, together with any other rmation necessary to the safe operation of the aeroplane, I be made available by means of an aeroplane flight ual, markings and placards, and such other means as may etively accomplish the purpose. The limitations and rmation shall include at least those prescribed in 9.2, 9.3	AND INFORMATION  9.1 General  operating limitations within which compliance with the dards of this Annex is determined, together with any other rmation necessary to the safe operation of the aeroplane, I be made available by means of an aeroplane flight ual, markings and placards, and such other means as may etively accomplish the purpose. The limitations and rmation shall include at least those prescribed in 9.2, 9.3	9.1 General  operating limitations within which compliance with the dards of this Annex is determined, together with any other romation necessary to the safe operation of the aeroplane, I be made available by means of an aeroplane flight ual, markings and placards, and such other means as may ctively accomplish the purpose. The limitations and romation shall include at least those prescribed in 9.2, 9.3

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Chapter 9 Reference 9.2 Standard	9.2 Operating limitations  Limitations which there is a risk of exceeding in flight and which are defined quantitatively shall be expressed in suitable units and corrected if necessary for errors in measurements so that the flight crew can, by reference to the instruments available to them, readily determine when the limitations are reached.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.1 Standard	9.2.1 Loading limitations  The loading limitations shall include all limiting masses, centre of gravity positions, mass distributions and floor loadings (see 1.3.2).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.2 Standard	9.2.2 Airspeed limitations  The airspeed limitations shall include all speeds (see 3.2) that are limiting from the standpoint of structural integrity or flying qualities of the aeroplane, or from other considerations. These speeds shall be identified with respect to the appropriate aeroplane configurations and other pertinent factors.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.3 Standard	9.2.3 Powerplant limitations  The powerplant limitations shall include all those established for the various powerplant components as installed in the aeroplane (see 7.1.2 and 7.2.3).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 9 Reference 9.2.4 Standard	9.2.4 Limitations on equipment and systems  The limitations on equipment and systems shall include all those established for the various equipment and systems as installed in the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.5 Standard	9.2.5 Miscellaneous limitations  Miscellaneous limitations shall include any necessary limitations with respect to conditions found to be prejudicial to the safety of the aeroplane (see 1.3.1).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.6 Standard	9.2.6 Flight crew limitations  The flight crew limitations shall include the minimum number of flight crew personnel necessary to operate the aeroplane, having regard, among other things, to the accessibility to the appropriate crew members of all necessary controls and instruments and to the execution of the established emergency procedures.  Note.— The circumstances in which the flight crew shall include members in addition to the minimum flight crew are defined in Annex 6, Parts I and II.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 9 Reference 9.2.7 Standard	9.2.7 Flying time limitation after system or engine failure  The systems limitations shall include the maximum flying time for which system reliability has been established in relation to the approval of operations by aeroplanes with two turbine engines beyond the threshold time established in accordance with 4.7 of Annex 6, Part I.  Note.— The maximum time established in accordance with 4.7 of Annex 6, Part I, for a particular route may be less than that determined in accordance with 9.2.7 because of the operational considerations involved.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.3.1 Standard	9.3 Operating information and procedures  9.3.1 Types of eligible operations  There shall be listed the particular types of operations, as may be defined in Annex 6, Parts I and II, or be generally recognized, for which the aeroplane has been shown to be eligible by virtue of compliance with the appropriate airworthiness requirements.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 9 Reference 9.3.2 Standard	9.3.2 Loading information  The loading information shall include the empty mass of the aeroplane, together with a definition of the condition of the aeroplane at the time of weighing, the corresponding centre of gravity position, and the reference points and datum lines to which the centre of gravity limits are related.  Note.— Usually the empty mass excludes the mass of the crew and payload, the usable fuel supply and the drainable oil; it includes the mass of all fixed ballast, unusable fuel supply, undrainable oil, total quantity of engine coolant and total quantity of hydraulic fluid.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.3.3 Standard	9.3.3 Operating procedures  A description shall be given of normal and emergency operating procedures which are peculiar to the particular aeroplane and necessary for its safe operation. These shall include procedures to be followed in the event of failure of one or more engines.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.3.4 Standard	9.3.4 Handling information  Sufficient information shall be given on any significant or unusual features of the aeroplane characteristics. Those stalling speeds or minimum steady flight speeds required to be established by 2.3.4.3 shall be scheduled.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 9 Reference 9.3.5 Standard	9.3.5 Least-risk bomb location  For aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60 and for which the application for certification was submitted on or after 12 March 2000, a least-risk location on the aeroplane shall be identified where a bomb or other explosive device may be placed to minimize the effects on the aeroplane in the case of detonation.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.4 Standard	9.4 Performance information  The performance of the aeroplane shall be scheduled in accordance with 2.2. There shall be included information regarding the various aeroplane configurations and powers involved and the relevant speeds, together with information that would assist the flight crew in attaining the performance as scheduled.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.5 Standard	9.5 Aeroplane flight manual  A flight manual shall be made available. It shall identify clearly the specific aeroplane or series of aeroplanes to which it is related. The flight manual shall include at least the limitations, information and procedures specified in this chapter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 9 Reference 9.6.1 Standard	9.6 Markings and placards  9.6.1 Markings and placards on instruments, equipment, controls, etc., shall include such limitations or information as necessary for the direct attention of the flight crew during flight.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 9 Reference 9.6.2 Standard	9.6.2 Markings and placards or instructions shall be provided to give any information that is essential to the ground crew in order to preclude the possibility of mistakes in ground servicing (e.g. towing, refuelling) that could pass unnoticed and that could jeopardize the safety of the aeroplane in subsequent flights.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 10 Reference 10.1 Standard	CHAPTER 10. CONTINUING AIRWORTHINESS — MAINTENANCE INFORMATION  10.1 General  Information for use in developing procedures for maintaining the aeroplane in an airworthy condition shall be made available. The information shall include that described in 10.2, 10.3 and 10.4.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Chapter 10 Reference 10.2 Standard	Maintenance information  Maintenance information shall include a description of the aeroplane and recommended methods for the accomplishment of maintenance tasks. Such information shall include guidance on defect diagnosis.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 10 Reference 10.3 Standard	Maintenance programme information  Maintenance programme information shall include the maintenance tasks and the recommended intervals at which these tasks are to be performed.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 10 Reference 10.4 Standard	10.4 Maintenance information resulting from the type design approval  Maintenance tasks and frequencies that have been specified as mandatory by the State of Design in approval of the type design shall be identified as such.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 11 Reference 11.1.0.1 Recommendation	CHAPTER 11. SECURITY  11.1 Aeroplanes used for domestic commercial operations  Recommendation.— International Standards and Recommended Practices set forth in this chapter should be applied by all Contracting States for aeroplanes engaged in domestic commercial operations (air services).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 11 Reference 11.2 Standard	For aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60 and for which the application for certification was submitted on or after 12 March 2000, consideration shall be given during the design of the aeroplane to the provision of a least-risk bomb location so as to minimize the effects of a bomb on the aeroplane and its occupants.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Chapter 11	11.3 Protection of the flight crew compartment	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA	
Reference		7 11			is by incorporation by	
11.3.0.1 Recommendation	Recommendation.— In all aeroplanes which are required by Annex 6, Part I, Chapter 13 to have an approved flight crew compartment door and for which an application for amending the Type Certificate to include a derivative type design was submitted to the appropriate national authority, consideration should be given to reinforcing the flight crew				reference in CAR Part 21 of appropriate FARs.	
	compartment bulkheads, floors and ceilings so as to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusions, if these areas are accessible in flight to passengers and cabin crew.					
	Note.— Standards and Recommended Practices concerning the requirements for the flight crew compartment door in all commercial passenger-carrying aeroplanes are contained in Annex 6, Part I, Chapter 13.					
Chapter 11	11.4 Interior design	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIA	
Reference	interior design	CART art 21, Appendix C.	No Difference		is by incorporation by	
11.4	For aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60 and for which the application for certification				reference in CAR Part 21 of appropriate FARs.	
Standard	was submitted on or after 12 March 2000, consideration shall be given to design features that will deter the easy concealment of weapons, explosives or other dangerous objects on board aircraft and that will facilitate search procedures for such objects.					

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	Standard or Recommended Practice	Reference	of SARP's		
Chapter 1 Reference 1.1.1	PART IIIB. AEROPLANES OVER 5 700 KG FOR WHICH APPLICATION FOR CERTIFICATION WAS SUBMITTED ON OR AFTER 2 MARCH 2004	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	CHAPTER 1. GENERAL				
	1.1 Applicability  1.1.1 The Standards of this part are applicable in respect of all aeroplanes designated in 1.1.2 for which an application for the issue of a Type Certificate was submitted to the appropriate national authorities on or after 2 March 2004.				
Chapter 1 Reference 1.1.2 Standard	1.1.2 Except for those Standards and Recommended Practices which specify a different applicability, the Standards and Recommended Practices of this part shall apply to all aeroplanes with a maximum certificated take-off mass greater than 5 700 kg and intended for the carriage of passengers or cargo or mail in international air navigation.  Note 1.— The aeroplanes described in 1.1.2 are known in some States as transport category aeroplanes.  Note 2.— The following Standards do not include	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
	quantitative specifications comparable to those found in national airworthiness codes. In accordance with 1.2.1 of Part II, these Standards are to be supplemented by requirements established, adopted or accepted by Contracting States.				

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Chapter 1 Reference 1.1.3 Standard	1.1.3 The level of airworthiness defined by the appropriate parts of the comprehensive and detailed national code referred to in 1.2.1 of Part II for the aeroplanes designated in 1.1.2 shall be at least substantially equivalent to the overall level intended by the broad Standards of this part.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.1.4 Standard	1.1.4 Unless otherwise stated, the Standards apply to the complete aeroplane including its powerplant, systems and equipment.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.2 Standard	1.2 Number of engines  As of 7 March 2021, the aeroplane shall have not less than two engines.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.3.1 Standard	1.3.1 Limiting conditions shall be established for the aeroplane, its powerplant, systems and equipment (see 7.2). Compliance with the Standards of this part shall be established assuming that the aeroplane is operated within the limitations specified. The limitations shall include a margin of safety to render the likelihood of accidents arising therefrom extremely remote.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 1 Reference 1.3.2 Standard	1.3.2 Limiting ranges of any parameter whose variation may compromise the safe operation of the aeroplane, e.g. mass, centre of gravity location, load distribution, speeds, ambient air temperature and altitude, shall be established within which compliance with all the pertinent Standards in this part is shown.  Note 1.— The maximum operating mass and centre of gravity limits may vary, for example, with each altitude and with each separate operating condition, e.g. take-off, en route, landing.  Note 2.— Maximum operating mass may be limited by the application of noise certification Standards (see Annex 16 — Environmental Protection, Volume I — Aircraft Noise, and Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes and Part II — International General Aviation — Aeroplanes).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.4 Standard	1.4 Unsafe features and characteristics  Under all anticipated operating conditions, the aeroplane shall not possess any feature or characteristic that renders it unsafe.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 1 Reference 1.5 Standard	The means by which compliance with the appropriate airworthiness requirements is demonstrated shall ensure that in each case the accuracy achieved will be such as to provide reasonable assurance that the aeroplane, its components and equipment comply with the requirements and are reliable and function correctly under the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.1.1 Standard	CHAPTER 2. FLIGHT  2.1 General  2.1.1 Compliance with the Standards prescribed in this chapter shall be established by flight or other tests conducted upon an aeroplane or aeroplanes of the type for which a Type Certificate is sought, or by calculations (or other methods) based on such tests, provided that the results obtained by calculations (or other methods) are equal in accuracy to, or conservatively represent, the results of direct testing.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.1.2 Standard	2.1.2 Compliance with each Standard shall be established for all applicable combinations of aeroplane mass and centre of gravity position, within the range of loading conditions for which certification is sought.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.1.3 Standard	2.1.3 Where necessary, appropriate aeroplane configurations shall be established for the determination of performance in the various stages of flight and for the investigation of the aeroplane's flying qualities.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.1 Standard	2.2.1 Until 4 November 2020, sufficient data on the performance of the aeroplane shall be determined and scheduled in the flight manual to provide operators with the necessary information for the purpose of determining the total mass of the aeroplane on the basis of the values, peculiar to the proposed flight, of the relevant operational parameters, in order that the flight may be made with reasonable assurance that a safe minimum performance for that flight will be achieved.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.1 Standard	2.2.1 As of 5 November 2020, sufficient data on the performance of the aeroplane shall be determined and furnished in the flight manual to provide operators with the necessary information for the purpose of determining the maximum total mass of the aeroplane at the time of take-off that would allow the flight to be made with reasonable assurance that a safe minimum performance for that flight will be achieved considering the values of the operational parameter peculiar to the proposed flight.	The second secon	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.2.2 Standard	2.2.2 Until 4 November 2020, achieving the performance scheduled for the aeroplane shall take into consideration human performance and in particular shall not require exceptional skill or alertness on the part of the flight crew.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.2 Standard	2.2.2 As of 5 November 2020, achieving the performance furnished in the flight manual for the aeroplane shall take into consideration human performance and in particular shall not require exceptional skill or alertness on the part of the flight crew.  Note.— Guidance material on human performance can be found in the Human Factors Training Manual (Doc 9683).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.3 Standard	2.2.3 Until 4 November 2020, the scheduled performance of the aeroplane shall be consistent with compliance with 1.3.1 and with the operation in logical combinations of those of the aeroplane's systems and equipment, the operation of which may affect performance.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.3 Standard	2.2.3 As of 5 November 2020, the performance data in the flight manual of the aeroplane shall be consistent with compliance with 1.3.1 and with the operation in logical combinations of those of the aeroplane's systems and equipment, the operation of which may affect performance.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.2.4.1 Standard	2.2.4 Minimum performance  2.2.4.1 Until 4 November 2020, at the maximum masses scheduled (see 2.2.7) for take-off and for landing as functions of the aerodrome elevation or pressure-altitude either in the standard atmosphere or in specified still air atmospheric conditions, and, for seaplanes, in specified conditions of smooth water, the aeroplane shall be capable of accomplishing the minimum performances specified in 2.2.5 and 2.2.6, respectively, not considering obstacles, or runway or water run length.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.2.4.1 Standard	2.2.4.1 As of 5 November 2020, for aeroplanes for which application for certification was submitted before 2 March 2019, at the maximum masses scheduled for take-off and for landing permitted by the performance data in the flight manual (see 2.2.7.2) as functions of the aerodrome elevation or pressure-altitude either in the standard atmosphere or in specified still air atmospheric conditions, and, for seaplanes, in specified conditions of smooth water, the aeroplane shall be capable of accomplishing the minimum performances specified in 2.2.5 and 2.2.6, respectively, not considering obstacles, or runway or water run length.  Note.— This Standard permits the maximum take-off mass and maximum landing mass to be scheduled in the flight manual against, for example:  — aerodrome elevation, or  — pressure-altitude at aerodrome level, or  — pressure-altitude and atmospheric temperature at aerodrome level,  so as to be readily usable when applying the national code on aeroplane performance operating limitations.		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.2.4.2 Standard	2.2.4.2 As of 5 November 2020, for aeroplanes for which application for certification was submitted on or after 2 March 2019, at the maximum masses scheduled for take-off and for landing permitted by the performance data in the flight manual (see 2.2.7.3) as functions of the aerodrome elevation or pressure-altitude either in the standard atmosphere or in specified still air atmospheric conditions, and, for seaplanes, in specified conditions of smooth water, the aeroplane shall be capable of accomplishing the minimum performances specified in 2.2.5 and 2.2.6, respectively, not considering obstacles, or runway or water run length.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.2.5 Standard	<ul> <li>a) The aeroplane shall be capable of taking off assuming the critical engine to fail (see 2.2.7), the remaining engine(s) being operated within their take-off power or thrust limitations.</li> <li>b) After the end of the period during which the take-off power or thrust may be used, the aeroplane shall be capable of continuing to climb, with the critical engine inoperative and the remaining engine(s) operated within their maximum continuous power or thrust limitations, up to a height that it can maintain and at which it can continue safe flight and landing.</li> <li>c) Until 4 November 2020, the minimum performance at all stages of take-off and climb shall be sufficient to ensure that under conditions of operation departing slightly from the idealized conditions for which data is scheduled (see 2.2.7), the departure from the scheduled values is not disproportionate.</li> </ul>		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.2.5 Standard	<ul> <li>a) The aeroplane shall be capable of taking off assuming the critical engine to fail (see 2.2.7), the remaining engine(s) being operated within their take-off power or thrust limitations.</li> <li>b) After the end of the period during which the take-off power or thrust may be used, the aeroplane shall be capable of continuing to climb, with the critical engine inoperative and the remaining engine(s) operated within their maximum continuous power or thrust limitations, up to a height that it can maintain and at which it can continue safe flight and landing.</li> <li>c) As of 5 November 2020, the minimum performance at all stages of take-off and climb shall be sufficient to ensure that under conditions of operation departing slightly from the idealized conditions for which data is furnished (see 2.2.7), the departure from the furnished values is not disproportionate.</li> </ul>		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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2.2.6 Landing	CAR Part 21. Appendix C.	No Difference		Compliance with Part IIIB
Č				is by incorporation by
<ul> <li>a) Starting from the approach configuration and with the critical engine inoperative, the aeroplane shall be capable, in the event of a missed approach, of</li> </ul>				reference in CAR Part 21 of appropriate FARs.
continuing the flight to a point from which another approach can be made.				
b) Starting from the landing configuration, the aeroplane shall be capable, in the event of a balked landing, of making a climb-out, with all engines operating.				
	2.2.6 Landing  a) Starting from the approach configuration and with the critical engine inoperative, the aeroplane shall be capable, in the event of a missed approach, of continuing the flight to a point from which another approach can be made.  b) Starting from the landing configuration, the aeroplane shall be capable, in the event of a balked landing, of	Standard or Recommended Practice  2.2.6 Landing  CAR Part 21, Appendix C.  a) Starting from the approach configuration and with the critical engine inoperative, the aeroplane shall be capable, in the event of a missed approach, of continuing the flight to a point from which another approach can be made.  b) Starting from the landing configuration, the aeroplane shall be capable, in the event of a balked landing, of	Standard or Recommended Practice  2.2.6 Landing  CAR Part 21, Appendix C.  No Difference  a) Starting from the approach configuration and with the critical engine inoperative, the aeroplane shall be capable, in the event of a missed approach, of continuing the flight to a point from which another approach can be made.  b) Starting from the landing configuration, the aeroplane shall be capable, in the event of a balked landing, of	Standard or Recommended Practice  2.2.6 Landing  CAR Part 21, Appendix C.  No Difference  No Difference  No Difference  Starting from the approach configuration and with the critical engine inoperative, the aeroplane shall be capable, in the event of a missed approach, of continuing the flight to a point from which another approach can be made.  b) Starting from the landing configuration, the aeroplane shall be capable, in the event of a balked landing, of

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2	2.2.7 Scheduling of performance	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB
Reference		**			is by incorporation by
2.2.7	Until 4 November 2020, performance data shall be determined and scheduled in the flight manual so that its application by				reference in CAR Part 21 of appropriate FARs.
Standard	means of the operating rules to which the aeroplane is to be operated in accordance with 5.2 of Annex 6, Part I, will provide a safe relationship between the performance of the aeroplane and the aerodromes and routes on which it is capable of being operated. Performance data shall be determined and scheduled for the following stages for the ranges of mass, altitude or pressure-altitude, wind velocity, gradient of the take-off and landing surface for landplanes; water surface conditions, density of water and strength of current for seaplanes; and for any other operational variables for which the aeroplane is to be certificated.  a) <i>Take-off</i> . The take-off performance data shall include the accelerate-stop distance and the take-off path.				
	distance shall be the distance required to accelerate and stop, or, for a seaplane to accelerate and come to a satisfactorily low speed, assuming the critical engine to fail suddenly at a point not nearer to the start of the take-off than that assumed when determining the take-off path (see 2.2.7 c)). For landplanes, the distance shall be based on operations with all the wheel brake assemblies at the fully worn limit of their allowable wear range.  c) Take-off path. The take-off path shall comprise the ground or water run, initial climb and climb-out, assuming the critical engine to fail suddenly during the take-off (see 2.2.7 b)). The take-off path shall be scheduled up to a height from which the aeroplane can continue safe flight and landing. The climb-out shall be made at a speed not less than the take-off				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	safety speed as determined in accordance with 2.3.2.4.  d) En route. The en-route climb performance shall be the climb (or descent) performance with the aeroplane in the en-route configuration with:  1) the critical engine inoperative; and  2) the two critical engines inoperative in the case of aeroplanes having three or more engines.  The operating engine(s) shall not exceed maximum continuous power or thrust.  e) Landing. The landing distance shall be the horizontal distance traversed by the aeroplane from a point on the approach flight path at a selected height above the landing surface at which the aeroplane comes to a complete stop, or, for a seaplane, comes to a satisfactorily low speed. The selected height above the landing surface and the approach speed shall be appropriately related to operating practices. This distance may be supplemented by such distance margin as may be necessary; if so, the selected height above the landing surface, the approach speed and the distance margin shall be appropriately interrelated and shall	Reference	of SARP's		
	make provision for both normal operating practices and reasonable variations therefrom. For landplanes, this distance shall be based on operations with all the wheel brake assemblies at the fully worn limit of their allowable wear range.  Note.— If the landing distance includes the distance margin specified in this Standard, it is not necessary to allow for the expected variations in the				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	approach and landing techniques in applying 5.2.11 of Annex 6, Part I.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 2 Reference 2.2.7.1 Standard	<ul> <li>2.2.7 Performance data</li> <li>2.2.7.1 As of 5 November 2020, the following stages are considered, as applicable: <ul> <li>a) Take-off. The take-off performance data shall include the accelerate-stop distance and the take-off path.</li> <li>b) Accelerate-stop distance. The accelerate-stop distance shall be the distance required to accelerate and stop, or, for a seaplane to accelerate and come to a satisfactorily low speed, assuming the critical engine to fail suddenly at a point not nearer to the start of the take-off than that assumed when determining the take-off path (see 2.2.7.1 c)). Additionally, for landplanes, the distance shall be based on operations with all the wheel brake assemblies at the fully worn limit of their allowable wear range.</li> </ul> </li> </ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.	
	<ul> <li>c) Take-off path. The take-off path shall comprise the ground or water run, initial climb and climb-out, assuming the critical engine to fail suddenly during the take-off (see 2.2.7.1 b)). The take-off path shall be scheduled up to a height from which the aeroplane can continue safe flight and landing. The climb-out shall be made at a speed not less than the take-off safety speed as determined in accordance with 2.3.2.4.</li> <li>d) En-route. The en-route climb performance shall be the climb (or descent) performance with the aeroplane in the en-route configuration with:</li> <li>1) the critical engine inoperative; and</li> <li>2) the two critical engines inoperative in the case of</li> </ul>					

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	N.	Report on entire Annex				
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
	aeroplanes having three or more engines.					
	The operating engine(s) shall not exceed maximum continuous power or thrust.					
	e) Landing. Landing performance data at the time of take-off. The landing distance shall be the horizontal distance traversed by the aeroplane from a point on the approach flight path at a selected height above the landing surface to the point on the landing surface at which the aeroplane comes to a complete stop, or, for a seaplane, comes to a satisfactorily low speed. The selected height above the landing surface and the approach speed shall be appropriately related to operating practices. This distance may be supplemented by such distance margin as may be necessary; if so, the selected height above the landing surface, the approach speed and the distance margin shall be appropriately interrelated and shall make provision for both normal operating practices and reasonable variations therefrom. For landplanes, this distance shall be based on operations with all the wheel brake assemblies at the fully worn limit of their allowable wear range.					
	Note.— If at time of take-off landing performance data includes the distance margin specified in this Standard, it is not necessary to allow for the expected variations in the approach and landing techniques in applying 5.2.11 of Annex 6, Part I.					
	f) Landing. At time of landing performance data. The landing distance shall be the horizontal distance traversed by the aeroplane from a point on the approach flight path to the point on the landing surface at which the aeroplane comes to a complete stop, or, for a seaplane, comes to a satisfactorily low					

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	speed. The approach speed, use of deceleration devices, and airborne portion of the landing distance shall be in accordance with and reflect directly actual normal operating practices. This distance may be supplemented by such distance margin as may be necessary. For landplanes, this distance shall be based on operations with all the wheel brake assemblies at the fully worn limit of their allowable wear range.				
Chapter 2 Reference 2.2.7.2 Standard	2.2.7.2 As of 5 November 2020, for aeroplanes for which application for certification was submitted before 2 March 2019, performance data shall be determined and furnished in the flight manual so that its application by means of the operating rules to which the aeroplane is to be operated in accordance with 5.2 of Annex 6, Part I, will provide a safe relationship between the performance of the aeroplane and the aerodromes and routes on which it is capable of being operated. Performance data shall be determined and furnished for the stages in 2.2.7.1 a) to e) for the ranges of mass, altitude or pressure-altitude, wind velocity, gradient of the take-off and landing surface for landplanes; water surface conditions, density of water and strength of current for seaplanes; and for any other operational variables for which the aeroplane is to be certificated.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
2.2.7.3 As of 5 November 2020, for aeroplanes for which	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB
pplication for certification was submitted on or after 2 March				is by incorporation by
2019, performance data shall be determined and furnished in the flight manual. Such performance data shall be so that its application by means of the operating rules to which the				reference in CAR Part 21 of appropriate FARs.
peroplane is to be operated in accordance with 5.2 of Annex 6, Part I, will provide a safe relationship between the performance of the aeroplane and the aerodromes and routes on which it is capable of being operated. Performance data shall be determined and furnished for the stages in 2.2.7.1 a) to f) for the ranges of mass, pressure-altitude, ambient temperature, wind velocity, and for any other operational variables for which the aeroplane is to be certificated. Additionally, the ake-off performance data and the at time of landing performance data shall include the effect of the gradient and conditions (dry, wet or contaminated) of the take-off or anding surface as appropriate for landplanes, and water surface conditions, density of water and strength of current for seaplanes. The at time of take-off landing performance data need only to be determined with standard day temperature and evel, dry landing surfaces for landplanes, but shall include the effect of water surface conditions, density of water, and trength of current for seaplanes.				
2.3 Flying qualities	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB
Jung danneres	Crite i ait 21, Appelluix C.	110 Difference		is by incorporation by
2.3.1 The aeroplane shall comply with the Standards of 2.3 at all altitudes up to the maximum anticipated altitude elevant to the particular requirement in all temperature conditions relevant to the altitude in question and for which the aeroplane is approved.				reference in CAR Part 21 of appropriate FARs.
2.3 at a elevant conditions	The aeroplane shall comply with the Standards of ll altitudes up to the maximum anticipated altitude to the particular requirement in all temperature relevant to the altitude in question and for which	The aeroplane shall comply with the Standards of ll altitudes up to the maximum anticipated altitude to the particular requirement in all temperature relevant to the altitude in question and for which	The aeroplane shall comply with the Standards of ll altitudes up to the maximum anticipated altitude to the particular requirement in all temperature relevant to the altitude in question and for which	The aeroplane shall comply with the Standards of ll altitudes up to the maximum anticipated altitude to the particular requirement in all temperature relevant to the altitude in question and for which

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#### Report on entire Annex

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.3.2.1 Standard	2.3.2 Controllability  2.3.2.1 The aeroplane shall be controllable and manoeuvrable under all anticipated operating conditions, and it shall be possible to make smooth transitions from one flight condition to another (e.g. turns, sideslips, changes of engine power or thrust, changes of aeroplane configurations) without requiring exceptional skill, alertness or strength on the part of the pilot even in the event of failure of any engine. A technique for safely controlling the aeroplane shall be established for all stages of flight and aeroplane configurations for which performance is scheduled.  Note.— This Standard is intended, among other things, to relate to operation in conditions of no appreciable atmospheric turbulence and also to ensure that there is no undue deterioration of the flying qualities in turbulent air.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.2.2 Standard	2.3.2.2 Controllability on the ground (or water). The aeroplane shall be controllable on the ground (or on the water) during taxiing, take-off and landing under the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.2.3 Standard	2.3.2.3 Controllability during take-off. The aeroplane shall be controllable in the event of sudden failure of the critical engine at any point in the take-off, when the aeroplane is handled in the manner associated with the scheduling of take-off paths and accelerate-stop distances.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.3.2.4 Standard	2.3.2.4 Take-off safety speed. The take-off safety speeds assumed when the performance of the aeroplane (after leaving the ground or water) during the take-off is determined shall provide an adequate margin above the stall and above the minimum speed at which the aeroplane remains controllable after sudden failure of the critical engine.	7 11	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.3 Standard	2.3.3 Trim  The aeroplane shall have such trim characteristics as to ensure that the demands made on the pilot's attention and ability to maintain a desired flight condition are not excessive when account is taken of the stage of flight at which these demands occur and their duration. This shall apply both in normal operation and in the conditions associated with the failure of one or more engines for which performance characteristics are established.		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.4.1	2.4 Stability and control  2.4.1 Stability	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	The aeroplane shall have such stability in relation to its other flight characteristics, performance, structural strength and most probable operating conditions (e.g. aeroplane configurations and speed ranges) as to ensure that demands made on the pilot's powers of concentration are not excessive when the stage of the flight at which these demands occur and their duration are taken into account. The stability of the aeroplane shall not, however, be such that excessive demands are made on the pilot's strength or that the safety of the aeroplane is prejudiced by lack of manoeuvrability in emergency conditions. It shall be shown that any combination of failures or conditions that would result in the need for exceptional piloting skills is extremely improbable. The stability may be achieved by natural or artificial means, or a combination of both. If compliance with the flight characteristics requirements is dependent upon a stability augmentation system or upon any other automatic or power-operated system, compliance shall be shown with 4.2 of this part.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.4.2.1 Standard	2.4.2 Stalling  2.4.2.1 Stall warning. Until 7 March 2021, when the aeroplane approaches a stall both in straight and turning flight with all engines operating, a clear and distinctive stall warning shall be apparent to the pilot with the aeroplane in all permissible configurations and powers or thrusts, except those which are not considered to be essential for safe flying. The stall warning and other characteristics of the aeroplane shall be such as to enable the pilot to arrest the development of the stall after the warning begins and, without altering the engine power or thrust, to maintain full control of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.4.2.1 Standard	2.4.2.1 Stall warning. As of 7 March 2021, when the aeroplane approaches a stall both in straight and turning flight, a clear and distinctive stall warning shall be apparent to the pilot with the aeroplane in all permissible configurations and powers or thrusts, except those which are not considered to be essential for safe flying. The stall warning and other characteristics of the aeroplane shall be such as to enable the pilot to arrest the development of the stall after the warning begins and, without altering the engine power or thrust, to maintain full control of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.4.2.2 Standard	2.4.2.2 Behaviour following a stall. In any configuration and at any level of power or thrust in which it is considered that the ability to recover from a stall is essential, the behaviour of the aeroplane following a stall shall not be so extreme as to make difficult a prompt recovery without exceeding the airspeed or strength limitations of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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		eport on entire Annex	•		- 4ke - 9
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.4.2.3 Standard	2.4.2.3 Stalling speeds. The stalling speeds or minimum steady flight speeds in configurations appropriate for each stage of flight (e.g. take-off, en route, landing) shall be established. One of the values of the power or thrust used in establishing the stalling speeds shall be not more than that necessary to give zero thrust at a speed just above the stall.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.4.3.1 Standard	2.4.3.1 It shall be demonstrated by suitable tests, analyses or any acceptable combination of tests and analyses that all parts of the aeroplane are free from flutter and excessive vibration in all aeroplane configurations under all speed conditions within the operating limitations of the aeroplane (see 1.3.2). There shall be no vibration or buffeting severe enough to cause structural damage.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.4.3.2 Standard	2.4.3.2 There shall be no vibration or buffeting severe enough to interfere with control of the aeroplane or to cause excessive fatigue to the flight crew.  Note.— Buffeting as a stall warning is considered desirable and discouragement of this type of buffeting is not intended.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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#### Report on entire Annex

	Report on entire Annex				
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.1.1 Standard	3.1.1 For aeroplanes for which application for certification was submitted before 24 February 2013, the aeroplane structure shall be designed, manufactured and provided with instructions for its maintenance and repair with the objective of avoiding catastrophic failure throughout its operational life.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.1.2 Standard	3.1.2 For aeroplanes for which application for certification was submitted on or after 24 February 2013, the aeroplane structure shall be designed, manufactured and provided with instructions for its maintenance and repair with the objective of avoiding hazardous and catastrophic failure throughout its operational life.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.2 Standard	Unless otherwise stated, all structural Standards shall be complied with when the mass is varied over the applicable range and is distributed in the most adverse manner, within the operating limitations on the basis of which certification is sought.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.3 Standard	3.3 Limit loads  Except as might be otherwise qualified, the external loads and the corresponding inertia loads, or resisting loads obtained for the various loading conditions prescribed in 3.6 shall be considered as limit loads.	7 11	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.4 Standard	3.4 Strength and deformation  In the various loading conditions prescribed in 3.6, no part of the aeroplane structure shall sustain detrimental deformation at any load up to and including the limit load, and the aeroplane structure shall be capable of supporting the ultimate load.		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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#### Report on entire Annex

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.5.1	3.5 Airspeeds  3.5.1 Design airspeeds	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	Design airspeeds shall be established for which the aeroplane structure is designed to withstand the corresponding manoeuvring and gust loads. To avoid inadvertent exceedances due to upsets or atmospheric variations, the design airspeeds shall provide sufficient margin for the establishment of practical operational limiting airspeeds. In addition, the design air-speeds shall be sufficiently greater than the stalling speed of the aeroplane to safeguard against loss of control in turbulent air. Consideration shall be given to a design manoeuvring speed, a design cruising speed, a design dive speed and any other design airspeeds necessary for configurations with high lift or other special devices.				
Chapter 3 Reference 3.5.2 Standard	3.5.2 Limiting airspeeds  Limiting airspeeds, based on the corresponding design airspeeds with safety margins, where appropriate, in accordance with 1.2.1, shall be included in the flight manual as part of the operating limitations (see 7.2).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference

Chapter 3

Reference

Standard

3.6.1

t (CC) / Electronic Filing of Differences (EFOD)		Annex 8, Amendment 106			
AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
3.6 Strength  3.6.1 All structural elements shall be designed to withstand the maximum loads expected in service under all anticipated operating conditions without failure, permanent distortion or loss of functionality. In determining these loads, account shall be taken of:  a) the expected operational life of the aeroplane;  b) the vertical and horizontal gust environment, taking into consideration the expected variations in mission profile and loading configurations;  c) the manoeuvre spectrum, taking into account variations in mission profile and loading configurations;  d) asymmetrical as well as symmetrical loading;  e) the ground and water loads, including taxi, landing and take-off loads, and ground/water handling loads;  f) the speed range of the aeroplane, taking into account the aeroplane characteristics and operation limitations;	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.	

a) the expected operational life b) the vertical and horizonta into consideration the exp profile and loading configura the manoeuvre spectrui variations in mission configurations; asymmetrical as well as symmetrical e) the ground and water los and take-off loads, and groun the speed range of the ae the aeroplane charac limitations; vibration and buffeting loads; h) corrosion or other given the degradation, maintenance specified, and various operating environments; and any other loads, such as flight control loads, cabin pressurization loads, engine loads, or dynamic loads due to changes to the steady state configuration.

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#### Report on entire Annex

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.6.2 Standard	3.6.2 The air, inertia and other loads resulting from the specific loading conditions shall be distributed so as to approximate actual conditions closely or to represent them conservatively.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.7 Standard	The aeroplane shall be designed so as to provide the occupants with the maximum practicable protection in the event of structural failure, or in the event of damage due to ground, water or object impact. Consideration shall be given to at least the following:  a) likely impact with birds; b) energy absorption by the airframe, occupant seats and restraints; c) the probable behaviour of the aeroplane in ditching; and d) allowing egress in the shortest practicable time.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT	State Legislation,	Level of	Text of the difference to be	Comments including the
	Standard or Recommended Practice	Regulation or Document Reference	implementation of SARP's	notified to ICAO	reason for the difference
Chapter 3 Reference 3.8.1 Standard	3.8 Structural durability  3.8.1 For aeroplanes for which application for certification was submitted before 24 February 2013, the design and construction of the aeroplane shall, wherever practicable, conform to damage tolerance principles and shall be such as to ensure that the probability of catastrophic failure during the operational life is extremely remote, taking into account:  a) the expected environment;  b) the expected repeated loads applied in service;  c) expected vibrations from aerodynamic interaction or internal sources;  d) thermal cycles;  e) accidental and discrete source damage;  f) likely corrosion or other degradation;	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
	g) specified maintenance; and h) likely structural repairs.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 3 Reference 3.8.2 Standard	3.8.2 For aeroplanes for which application for certification was submitted on or after 24 February 2013, the design and construction of the aeroplane shall, wherever practicable, conform to damage tolerance and failsafe principles and shall be such as to avoid catastrophic failure during the operational life, taking into account:  a) the expected environment;  b) the expected repeated loads applied in service;  c) expected vibrations from aerodynamic interaction or internal sources;  d) thermal cycles;  e) accidental and discrete source damage;  f) likely corrosion or other degradation;  g) widespread fatigue damage;  h) specified maintenance; and  i) likely structural repairs.  Note.— The expression "wherever practicable" is introduced to ensure that when an effective damage-tolerant structure cannot be achieved within the limitations of geometry, inspectability or good design practice, the structure can be designed to the fatigue evaluation (safe-life) principles. Typical examples of structures that might not be amenable to damage-tolerant design are landing gear, engine mounts and their attachments.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
3.9 Special factors  For aeroplanes for which application for certification was submitted on or after 24 February 2013, the design features (e.g. castings, bearings or fittings), the strength of which is subject to variability in manufacturing processes, deterioration in service or any other cause, shall be accounted for by a suitable factor.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
CHAPTER 4. DESIGN AND CONSTRUCTION	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
4.1.1 Details of design and construction shall be such as to give reasonable assurance that all aeroplane parts will function effectively and reliably in the anticipated operating conditions. They shall be based upon practices that experience has proven to be satisfactory or that are substantiated by special tests or by other appropriate investigations or both. They shall also consider human factors principles.  Note.— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc 9683).				
	Standard or Recommended Practice  3.9 Special factors  For aeroplanes for which application for certification was submitted on or after 24 February 2013, the design features (e.g. castings, bearings or fittings), the strength of which is subject to variability in manufacturing processes, deterioration in service or any other cause, shall be accounted for by a suitable factor.  CHAPTER 4. DESIGN AND CONSTRUCTION  4.1 General  4.1.1 Details of design and construction shall be such as to give reasonable assurance that all aeroplane parts will function effectively and reliably in the anticipated operating conditions. They shall be based upon practices that experience has proven to be satisfactory or that are substantiated by special tests or by other appropriate investigations or both. They shall also consider human factors principles.  Note.— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc	Standard or Recommended Practice  3.9 Special factors  CAR Part 21, Appendix C.  For aeroplanes for which application for certification was submitted on or after 24 February 2013, the design features (e.g. castings, bearings or fittings), the strength of which is subject to variability in manufacturing processes, deterioration in service or any other cause, shall be accounted for by a suitable factor.  CHAPTER 4. DESIGN AND CONSTRUCTION  4.1 General  4.1.1 Details of design and construction shall be such as to give reasonable assurance that all aeroplane parts will function effectively and reliably in the anticipated operating conditions. They shall be based upon practices that experience has proven to be satisfactory or that are substantiated by special tests or by other appropriate investigations or both. They shall also consider human factors principles.  Note.— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc	Standard or Recommended Practice  3.9 Special factors  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  No Difference	Standard or Recommended Practice  Standard or Recommended Practice  3.9 Special factors  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  No Difference  CHAPTER 4. DESIGNAND CONSTRUCTION  CHAPTER 4. Design and construction shall be such as to give reasonable assurance that all aeroplane parts will louncion effectively and reliably in the anticipated operating conditions. They shall be based upon practices that experience has proven to be satisfactory or that are experience has proven to be stiffs and to such as to give reasonable tasts or by other appropriate investigations or both. They shall also consider human factors principles can be found in the Human Factors Training Manual (Doc

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.1.2 Standard	4.1.2 Substantiation of moving parts  The functioning of all moving parts essential to the safe operation of the aeroplane shall be demonstrated by suitable tests in order to ensure that they will function correctly under all operating conditions for such parts.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.3 Standard	All materials used in parts of the aeroplane essential for its safe operation shall conform to approved specifications. The approved specifications shall be such that materials accepted as complying with the specifications will have the essential properties assumed in the design. The effect of the materials on the occupants of the aeroplane and other persons on the ground, and the environment in general, in normal and emergency situations, shall be taken into account.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.4 Standard	4.1.4 Manufacturing methods  The methods of manufacturing and assembly shall be such as to produce a consistently sound structure which shall be reliable with respect to maintenance of strength in service.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.5 Standard	4.1.5 Protection  The structure shall be protected against deterioration or loss of strength in service due to weathering, corrosion, abrasion or other causes, which could pass unnoticed, taking into account the maintenance the aeroplane will receive.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4	4.1.6 Inspection provisions	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB
Reference		Criterate 21, rippolitaix C.	The Billerence		is by incorporation by
4.1.6	Adequate provision shall be made to permit any necessary examination, replacement or reconditioning of parts of the aeroplane that require such attention, either periodically or				reference in CAR Part 21 of appropriate FARs.
Standard	after unusually severe operations.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.2 Standard	Special consideration shall be given to design features that affect the ability of the flight crew to maintain controlled flight. This shall include at least the following:  a) Controls and control systems. The design of the controls and control systems shall be such that:  1) each control and control system shall operate with the ease, smoothness and precision appropriate to its function;  2) continued safe flight and landing of the aeroplane shall not be prevented by:  i) any single failure not shown to be extremely improbable in the control system; or  ii) any event that results in a jam of a flight control in any normally encountered position of the flight controls;  3) the possibility of jamming, inadvertent operation and unintentional engagement of control surface locking devices is minimized; and  4) each element of each flight control system is designed, or distinctively and permanently marked, to minimize the probability of any incorrect assembly that could result in the	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
	<ul> <li>b) System survivability.</li> <li>1) For aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger</li> </ul>				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	seating capacity greater than 60, aeroplane systems shall be designed, arranged and physically separated to maximize the potential for continued safe flight and landing after any event resulting in damage to the aeroplane structure or systems.				
	2) Recommendation.— For aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg but not exceeding 45 500 kg, aeroplane systems should be designed, arranged and physically separated to maximize the potential for continued safe flight and landing after any event resulting in damage to the aeroplane structure or systems.				
	c) Crew environment. The design of the flight crew compartment shall be such as to minimize the possibility of incorrect or restricted operation of the controls by the crew, due to fatigue, confusion or interference. Consideration shall be given at least to the following: layout and identification of controls and instruments, rapid identification of emergency situations, sense of controls, ventilation, heating and noise.				
	d) Pilot vision. The arrangement of the flight crew compartment shall be such as to afford a sufficiently extensive, clear and undistorted field of vision for the safe operation of the aeroplane, and to prevent glare and reflections that would interfere with the pilot's vision. The design features of the windshield shall permit, under precipitation conditions, sufficient vision for the normal conduct of flight and for the execution of approaches and landings.				
	e) Provision for emergencies. Means shall be provided				

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Annex Reference		AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	f)	which shall either automatically prevent, or enable the flight crew to deal with, emergencies resulting from foreseeable failures of equipment and systems, the failure of which would endanger the aeroplane. Reasonable provisions shall be made for continuation of essential services following engine or system failures to the extent that such failures are catered for in the performance and operating limitations specified in the Standards in this Annex and in Annex 6, Parts I and II.  Fire precautions.  1) The design of the aeroplane and the materials used in its manufacture shall be such so as to minimize the risk of in-flight and ground fires, to minimize the production of smoke and toxic gases in the event of a fire and to delay the occurrence of flashover resulting from heat release in the cabin. Means shall be provided to contain or to detect and extinguish such fires as might occur in such a way that no additional danger to the aeroplane is caused. Lavatories installed in aeroplanes shall be equipped with a smoke detection system and a built-in fire extinguisher system for each receptacle intended for the disposal of towels, paper or waste.  2) For aeroplanes for which application for certification was submitted on or after 24 February 2013, design precautions shall be taken to minimize the risk of an uncontained fire initiating in areas of the aeroplane that contain high concentrations of wiring or equipment that are not normally accessible in flight.				
		Note.— Design precautions may include the				

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### Annex 8, Amendment 106

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	selection of appropriate materials and types of equipment installed in these areas, as well as the reduction of possible ignition sources, typically by preventing the ingress of fuel or fuel vapour, upgrading the flammability requirements of aircraft wiring or improving the detection of overheating or smoke and the indication of its presence to the flight crew, etc.  g) Cargo compartment protection.				
	1) Each cargo compartment accessible to a crew member in a passenger-carrying aeroplane shall be equipped with a fire suppression system;  2) each cargo compartment not accessible to a crew member shall be equipped with a built-in fire detection system and a built-in fire suppression system; and				
	3) until 7 March 2021, cargo compartment fire suppression systems, including their extinguishing agents, shall be designed so as to take into account a sudden and extensive fire such as could be caused by an explosive or incendiary device or dangerous goods.				
	3) as of 7 March 2021, for aeroplanes of a maximum certificated take-off mass in excess of 45 000 kg or with a passenger seating capacity greater than 60, cargo compartment fire suppression systems, including their extinguishing agents, shall be designed so as to take into account a sudden and extensive fire such as could be caused by an explosive or incendiary device or dangerous goods.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	h) Incapacitation of occupants.  1) For aeroplanes for which application for certification was submitted on or after 24 February 2013, design precautions shall be taken to protect against possible instances of cabin depressurization and against the presence of smoke or other toxic gases that could incapacitate the occupants of the aeroplane.  2) In addition, for aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60, design precautions shall be taken to protect against possible instances of cabin depressurization and against the presence of smoke or other toxic gases caused by explosive or incendiary devices or dangerous goods which could incapacitate the occupants of the aeroplane.  3) Recommendation.— For aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg but not exceeding 45 500 kg, design precautions should be taken to protect against possible instances of cabin depressurization and against the presence of smoke or other toxic gases, including those caused by explosive or incendiary devices or dangerous goods, which could incapacitate the occupants of the aeroplane.  i) Protection of the flight crew compartment from smoke and fumes.				
	mass in excess of 45 500 kg or with a passenger				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	seating capacity greater than 60, means shall be provided to minimize entry into the flight crew compartment of smoke, fumes and noxious vapours generated by an explosion or fire on the aeroplane.  2) Recommendation.— For aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg but not exceeding 45 500 kg, means should be provided to minimize entry into the flight crew compartment of smoke, fumes and noxious vapours generated by an explosion or fire on the aeroplane.				
Chapter 4 Reference 4.3 Standard	4.3 Aeroelasticity  The aeroplane shall be free from flutter, structural divergence, and loss of control due to structural deformation and aeroelastic effects, at all speeds within and sufficiently beyond the design envelope to comply with 1.3.1. Account shall be taken of the characteristics of the aeroplane and variations in pilot skill and workload. Allowable limits for aerodynamic control surfaces and how those limits are to be monitored shall be specified so as to ensure that the aeroplane remains free from aeroelastic problems during its operational life.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 4 Reference 4.4.1 Standard	4.4.1 Seating and restraints  Adequate seating and restraints shall be provided for the occupants, taking account of the likely flight and emergency landing loads to be encountered. Attention shall be paid to minimizing injury to occupants due to contact with surrounding structures during the operation of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.4.2 Standard	4.4.2 Cabin environment  Ventilation, heating and, where applicable, pressurization systems shall be designed to provide the cabin with an adequate environment during the anticipated flight and ground or water operating conditions. The systems design shall also consider likely emergency conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.5.1 Standard	4.5 Electrical bonding and protection against lightning and static electricity  4.5.1 Electrical bonding and protection against lightning and static electricity shall be such as to:  a) protect the aeroplane, its systems, its occupants and those who come in contact with the aeroplane on the ground or water from the dangerous effects of lightning discharge and electrical shock; and  b) prevent dangerous accumulation of electrostatic charge.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 4 Reference 4.5.2 Standard	4.5.2 The aeroplane shall also be protected against catastrophic effects of lightning. Due account shall be taken of the material used in the construction of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.6.1 Standard	4.6 Emergency landing provisions  4.6.1 Provisions shall be made in the design of the aeroplane to protect the occupants, in the event of an emergency landing, from fire and from the direct effects of deceleration forces as well as from injuries arising from the effect of deceleration forces on the aeroplane's interior equipment.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.6.2 Standard	4.6.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane and shall be shown to be suitable for their intended purpose.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.6.3 Standard	4.6.3 The interior layout of the cabin and the position and number of emergency exits, including the means of locating and illuminating the escape paths and exits, shall be such as to facilitate rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 4 Reference 4.6.4 Standard	4.6.4 On aeroplanes certificated for ditching conditions, provisions shall be made in the design to give maximum practicable assurance that safe evacuation from the aeroplane of passengers and crew can be executed in case of ditching.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.7 Standard	4.7 Ground handling  Adequate provisions shall be made to minimize the risk that normal ground handling operations (e.g. towing, jacking) may cause damage, which could pass unnoticed, to the parts of the aeroplane essential for its safe operation. The protection that any limitations and instructions for such operations might provide may be taken into account.		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.1 Standard	CHAPTER 5. POWERPLANT  5.1 Engines  The Standards of Part VI of this Annex shall apply to each engine that is used on the aeroplane as a primary propulsion unit.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5 Reference 5.2 Standard	5.2 Propellers  The Standards of Part VII of this Annex shall apply to each propeller that is used on the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.1 Standard	5.3 Powerplant installation  5.3.1 Compliance with engine and propeller limitations  The powerplant installation shall be so designed that the engines and propellers (if applicable) are capable of functioning reliably in the anticipated operating conditions. In conditions established in the flight manual, the aeroplane shall be capable of being operated without exceeding the limitations established for the engines and propellers in accordance with this chapter and with Parts VI and VII.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.2 Standard	5.3.2 Control of engine rotation  In those installations where continued rotation of a failed engine would increase the hazard of fire or of a serious structural failure, means shall be provided for the crew to stop the rotation of the failed engine in flight or to reduce it to a safe level.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5 Reference 5.3.3 Standard	5.3.3 Turbine engine installation  For a turbine engine installation:  a) the design shall minimize the hazards to the aeroplane in the event of failure of engine rotating parts, or an engine fire which burns through the engine case; and  b) the powerplant installation shall be designed to give reasonable assurance that those engine operating limitations that adversely affect the structural integrity of rotating parts shall not be exceeded in service.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.4 Standard	5.3.4 Engine restarting  Means shall be provided for restarting an engine in flight at altitudes up to a declared maximum altitude.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.5.1 Standard	5.3.5 Arrangement and functioning  5.3.5.1 Independence of engines. For aeroplanes for which application for certification was submitted before 24 February 2013, the powerplant shall be arranged and installed so that each engine together with its associated systems is capable of being controlled and operated independently from the others and so that there is at least one arrangement of the powerplant and systems in which any failure, unless the probability of its occurrence is extremely remote, cannot result in a loss of more power than that resulting from complete failure of the critical engine.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 5 Reference 5.3.5.2 Standard	<ul> <li>5.3.5.2 Independence of engines and associated systems. For aeroplanes for which application for certification was submitted on or after 24 February 2013, the engines together with their associated systems shall be arranged and isolated from each other to allow operation, in at least one configuration, so that the failure or malfunction of any engine, or of any system that can affect the engine, will not:</li> <li>a) prevent the continued safe operation of the remaining engine(s); or</li> <li>b) require immediate action by any crew member for continued safe operation of the remaining engine(s).</li> </ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.5.3 Standard	5.3.5.3 <i>Propeller vibration</i> . The propeller vibration stresses shall be determined and shall not exceed values that have been found safe for operation within the operating limitations established for the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.5.4 Standard	5.3.5.4 <i>Cooling</i> . The cooling system shall be capable of maintaining the temperature of powerplant components and fluids within the established limits (see 5.3.1) at ambient air temperatures up to the maximum air temperature appropriate to the intended operation of the aeroplane. The maximum and, if necessary, minimum ambient air temperature for which the powerplant has been established as being suitable shall be scheduled in the flight manual.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 5 Reference 5.3.5.5 Standard	5.3.5.5 Associated systems. The fuel, oil, air induction and other systems associated with the powerplant shall be capable of supplying each engine in accordance with its established requirements, under all conditions affecting the functioning of the systems (e.g. engine power or thrust, aeroplane attitudes and accelerations, atmospheric conditions, fluid temperatures) within the anticipated operating conditions.		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5	5.3.5.6 Fire protection. For regions of the powerplant	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB
Reference	where the potential fire hazards are particularly serious	, Pr			is by incorporation by
5.3.5.6	because of the proximity of ignition sources to combustible				reference in CAR Part 21 of
	materials, the following shall apply in addition to the general Standard of 4.2 f):				appropriate FARs.
Standard	<ul> <li>a) Isolation. Such regions shall be isolated by fireproof material from other regions of the aeroplane where the presence of fire would jeopardize continued flight, taking into account the probable points of origin and paths of propagation of fire.</li> <li>b) Flammable fluids. Flammable fluid system components located in such regions shall be fire resistant. Drainage of each region shall be provided to minimize hazards resulting from the failure of any component containing flammable fluids. Means shall be provided for the crew to shut off the flow of flammable fluids into such regions if a fire occurs. Where sources of flammable fluid exist in such regions, the whole of the related system within the region, including supporting structure, shall be fireproof or shielded from the effects of the fire.</li> <li>c) Fire detection. A sufficient number of fire detectors shall be provided and located to ensure rapid detection of any fire that might occur in such regions.</li> <li>d) Fire extinguishment. Such regions shall be provided with a fire extinguisher system capable of extinguishing any fire likely to occur therein, unless the degree of isolation, quantity of combustibles, fire resistance of the structure and other factors are such that any fire likely to occur in the region would not jeopardize the safety of the aeroplane.</li> </ul>				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.1.1 Standard	6.1.1 The aeroplane shall be provided with approved instruments, equipment and systems, including guidance and flight management systems necessary for the safe operation of the aeroplane in the anticipated operating conditions. These shall include the instruments and equipment necessary to enable the crew to operate the aeroplane within its operating limitations. Instruments and equipment design shall observe human factors principles.  Note 1.— Instruments and equipment additional to the minimum necessary for the issuance of a Certificate of Airworthiness are prescribed in Annex 6, Parts I and II, for particular circumstances or on particular kinds of routes.  Note 2.— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc 9683).		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.1.2 Standard	6.1.2 The design of the instruments, equipment and systems required by 6.1.1 and their installation shall be such that:  a) an inverse relationship exists between the probability of a failure condition and the severity of its effect on the aircraft and its occupants, as determined by a system safety assessment process;  b) they perform their intended function under all anticipated operating conditions; and  c) electromagnetic interference between them is minimized.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.1.3 Standard	6.1.3 Means shall be provided to warn the crew of unsafe system operating conditions and to enable them to take corrective action.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.1.4 Standard	6.1.4 Electrical power supply  The design of the electrical power supply system shall be such as to enable it to supply power loads during normal operations of the aeroplane and essential power loads after failures that affect the electrical generating system and under expected environmental conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.1.5 Standard	6.1.5 Development assurance of complex electronic hardware and system software  For aeroplanes for which application for certification was submitted on or after 24 February 2013, complex electronic hardware and system software shall be developed, verified and validated such as to ensure that the systems in which they are used perform their intended functions at a level of safety that complies with the requirements of this section, notably those of 6.1.2 a) and 6.1.2 b).  Note.— Some States accept the use of national or international industry standards for the development assurance (development, verification and validation) of complex electronic hardware and systems software.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.2 Standard	6.2 Installation  Instrument and equipment installations shall comply with the Standards of Chapter 4.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.3 Standard	Prescribed safety and survival equipment that the crew or passengers are expected to use or operate at the time of an emergency shall be reliable, readily accessible and easily identified, and its method of operation shall be plainly marked.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.4.1 Standard	6.4. Navigation lights and anti-collision lights  6.4.1 The lights required by Annex 2 — Rules of the Air to be displayed by aeroplanes in flight or operating on the movement area of an aerodrome shall have intensities, colours, fields of coverage and other characteristics such that they furnish the pilot of another aircraft or personnel on the ground with as much time as possible for interpretation and for subsequent manoeuvre necessary to avoid a collision. In the design of such lights, due account shall be taken of the conditions under which they may reasonably be expected to perform these functions.  Note.— It is likely that lights will be viewed against a variety of backgrounds, such as typical city lighting, clear starry sky, moonlit water and daytime conditions of low background luminance. Furthermore, collision risk situations are most likely to arise in terminal control areas in which aircraft are manoeuvring in the intermediate and lower flight levels at closing speeds that are unlikely to exceed 900 km/h (500 kt).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.4.2 Standard	6.4.2 Lights shall be installed in aeroplanes so as to minimize the possibility that they will adversely affect the satisfactory performance of the flight crews' duties.  Note.— In order to avoid the effects mentioned in 6.4.2, it will be necessary in some cases to provide means whereby the pilot can adjust the intensity of the flashing lights.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 6 Reference 6.5 Standard	6.5 Electromagnetic interference protection  Aeroplane electronic systems, particularly flight-critical and flight-essential systems, shall be protected against electromagnetic interference from both internal and external sources.		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 6 Reference 6.6 Standard	6.6 Ice protection  If certification for flight in icing conditions is requested, the aeroplane shall be shown to be able to operate safely in icing conditions likely to be encountered in all anticipated operating environments.		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.1	CHAPTER 7. OPERATING LIMITATIONS AND INFORMATION	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	7.1 General  The operating limitations within which compliance with the Standards of this Annex is determined, together with any other information necessary to the safe operation of the aeroplane, shall be made available by means of a flight manual, markings and placards, and such other means as may effectively accomplish the purpose.				
Chapter 7 Reference 7.2.1 Standard	7.2.1 Limitations which might be exceeded in flight and which are defined quantitatively shall be expressed in suitable units. These limitations shall be corrected if necessary for errors in measurements so that the flight crew can, by reference to the instruments available to them, readily determine when the limitations are reached.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.2 Standard	7.2.2 Loading limitations  The loading limitations shall include all limiting masses, centre of gravity positions, mass distributions and floor loadings (see 1.3.2).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.2.3 Standard	7.2.3 Airspeed limitations  The airspeed limitations shall include all speeds (see 3.5) that are limiting from the standpoint of structural integrity or flying qualities of the aeroplane, or from other considerations. These speeds shall be identified with respect to the appropriate aeroplane configurations and other pertinent factors.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.4 Standard	7.2.4 Powerplant limitations  The powerplant limitations shall include all those established for the various powerplant components as installed in the aeroplane (see 5.3.1 and 5.3.5.4).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.5 Standard	7.2.5 Limitations on equipment and systems  The limitations on equipment and systems shall include all those established for the various equipment and systems as installed in the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.6 Standard	7.2.6 Miscellaneous limitations  Miscellaneous limitations shall include any necessary limitations with respect to conditions found to be prejudicial to the safety of the aeroplane (see 1.3.1).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.2.7 Standard	7.2.7 Flight crew limitations  The flight crew limitations shall include the minimum number of flight crew personnel necessary to operate the aeroplane, having regard, among other things, to the accessibility to the appropriate crew members of all necessary controls and instruments and to the execution of the established emergency procedures.  Note.— The circumstances in which the flight crew shall include members in addition to the minimum flight crew are defined in Annex 6, Parts I and II.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.8 Standard	7.2.8 Flying time limitation after system or engine failure  The systems limitations shall include the maximum flying time for which system reliability has been established in relation to the approval of operations by aeroplanes with two turbine engines beyond the threshold time established in accordance with 4.7 of Annex 6, Part I.  Note.— The maximum time established in accordance with 4.7 of Annex 6, Part I, for a particular route may be less than that determined in accordance with 7.2.8 because of the operational considerations involved.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.3.1 Standard	7.3.1 Types of eligible operations  The particular types of operations for which the aeroplane has been shown to be eligible by virtue of compliance with the appropriate airworthiness requirements shall be listed.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.3.2 Standard	The loading information shall include the empty mass of the aeroplane, together with a definition of the condition of the aeroplane at the time of weighing, the corresponding centre of gravity position, and the reference points and datum lines to which the centre of gravity limits are related.  Note.— Usually the empty mass excludes the mass of the crew and payload, the usable fuel supply and the drainable oil; it includes the mass of all fixed ballast, unusable fuel supply, undrainable oil, total quantity of engine coolant and total quantity of hydraulic fluid.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.3.3 Standard	7.3.3 Operating procedures  A description shall be given of normal and emergency operating procedures which are peculiar to the particular aeroplane and necessary for its safe operation. These shall include procedures to be followed in the event of failure of one or more engines.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 7 Reference 7.3.4 Standard	7.3.4 Handling information  Sufficient information shall be given on any significant or unusual features of the aeroplane characteristics. Those stalling speeds or minimum steady flight speeds required to be established by 2.4.2.3 shall be scheduled.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.3.5 Standard	7.3.5 Least-risk bomb location  For aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60, a least-risk location on the aeroplane shall be identified where a bomb or other explosive device may be placed to minimize the effects on the aeroplane in the case of detonation.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.4 Standard	7.4 Performance information  The performance of the aeroplane shall be scheduled in accordance with 2.2. There shall be included information regarding the various aeroplane configurations and powers or thrusts involved and the relevant speeds, together with information that would assist the flight crew in attaining the performance as scheduled.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.5 Standard	7.5 Flight manual  A flight manual shall be made available. It shall identify clearly the specific aeroplane or series of aeroplanes to which it is related. The flight manual shall include at least the limitations, information and procedures specified in 7.2, 7.3, 7.4 and 7.6.1.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.6.1 Standard	7.6 Markings and placards  7.6.1 Markings and placards on instruments, equipment, controls, etc., shall include such limitations or information as necessary for the direct attention of the flight crew during flight.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.6.2 Standard	7.6.2 Markings and placards or instructions shall be provided to give any information that is essential to the ground crew in order to preclude the possibility of mistakes in ground servicing (e.g. towing, refuelling) that could pass unnoticed and that could jeopardize the safety of the aeroplane in subsequent flights.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.7.1 Standard	7.7 Continuing airworthiness — maintenance information  7.7.1 General  Information for use in developing procedures for maintaining the aeroplane in an airworthy condition shall be made available. The information shall include that described in 7.7.2, 7.7.3 and 7.7.4.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.7.2 Standard	7.7.2 Maintenance information  Maintenance information shall include a description of the aeroplane and recommended methods for the accomplishment of maintenance tasks. Such information shall include guidance on defect diagnosis.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.7.3 Standard	7.7.3 Maintenance programme information  Maintenance programme information shall include the maintenance tasks and recommended intervals at which these tasks are to be performed.  Note.— The development of initial maintenance programme information at the time of aeroplane type certification is sometimes referred to as the Maintenance Review Board (MRB) process.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.7.4 Standard	7.7.4 Mandatory maintenance requirements resulting from the type design approval  Mandatory maintenance requirements that have been specified by the State of Design as part of the approval of the type design shall be identified as such and included in the maintenance information of 7.7.3.  Note.— Mandatory requirements identified as part of the type design approval are often referred to as Certification Maintenance Requirements (CMR) and/or airworthiness limitations.	7	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 8 Reference 8.1 Standard	CHAPTER 8. CRASHWORTHINESS AND CABIN SAFETY  8.1 General  Crashworthiness shall be taken into account in the design of aeroplanes to improve the probability of occupant survival.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8 Reference 8.2.1 Standard	8.2.1 For aeroplanes for which application for certification was submitted before 24 February 2013, emergency landing (crash) loads shall be determined for all categories of aeroplanes so that the interiors, furnishings, support structure and safety equipment can be designed to maximize survivability for the occupants. Items to be considered shall include:  a) dynamic effects;  b) restraint criteria for items that could cause a hazard;  c) distortion of the fuselage in the areas of emergency exits;  d) fuel cell integrity and position; and  e) integrity of electrical systems to avoid sources of ignition.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8 Reference 8.2.2 Standard	8.2.2 For aeroplanes for which application for certification was submitted on or after 24 February 2013, emergency landing (crash) loads shall be determined so that the interiors, furnishings, support structure and safety equipment can be designed to protect the occupants under emergency landing conditions. Items to be considered shall include:  a) dynamic effects;  b) restraint criteria for items that could cause a hazard;  c) deformation of the fuselage in the areas of emergency exits;  d) fuel cell integrity and position; and  e) integrity of electrical systems to avoid sources of ignition.		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8	8.3 Cabin fire protection	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB
Reference					is by incorporation by
8.3	The cabin shall be so designed as to provide fire protection to				reference in CAR Part 21 of
	the occupants in the event of airborne systems failures or a				appropriate FARs.
Standard	crash situation. Items to be considered shall include:				
Standard	a) flammability of cabin interior materials;				
	b) fire resistance and the generation of smoke and toxic fumes;				
	c) provision of safety features to allow for safe evacuation; and				
	d) fire detection and suppression equipment.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8 Reference 8.4 Standard	8.4 Evacuation  The aeroplane shall be equipped with sufficient emergency exits to allow maximum opportunity for cabin evacuation within an appropriate time period. Items to be considered shall include:  a) number of seats and seating configuration;  b) number, location and size of exits;  c) marking of exits and provision of instructions for use;  d) likely blockages of exits;  e) operation of exits; and  f) positioning and weight of evacuation equipment at exits, e.g. slides and rafts.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8 Reference 8.5 Standard	8.5 Lighting and marking  Emergency lighting shall be provided and shall have the following characteristics:  a) independence from main electrical supply;  b) automatic activation upon loss of normal power/impact;  c) visual indication of the path to emergency exits in smoke-filled cabin conditions;  d) illumination both inside and outside the aeroplane	• ••	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
	during evacuation; and  e) no additional hazard in the event of fuel spillage.				

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Chapter 8 Reference 8.6 Standard	8.6 Survival equipment  The aeroplane shall be so equipped as to provide the crew and occupants with the maximum opportunity to survive in the expected external environment for a reasonable time span. Items to be considered shall include:  a) number of life rafts/life jackets;  b) survival equipment suited to the likely environment;  c) emergency radios and pyrotechnical distress signalling equipment; and  d) automatic emergency radio beacons.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.1 Standard	CHAPTER 9. OPERATING ENVIRONMENT AND HUMAN FACTORS  9.1 General	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
	The aeroplane shall be designed to allow safe operation within the performance limitations of its passengers and those who operate, maintain and service it.  Note.— The human/machine interface is often the weak link in an operating environment; so, it is necessary to ensure that the aeroplane is capable of being controlled at all phases of the flight (including any degradation due to failures) and that neither the crew nor passengers are harmed by the environment in which they have been placed for the duration of the flight.				
Chapter 9 Reference 9.2.1 Standard	9.2 Flight crew  9.2.1 The aeroplane shall be designed in such a way as to allow safe and efficient control by the flight crew. The design shall allow for variations in flight crew skill and physiology commensurate with flight crew licensing limits. Account shall be taken of the different expected operating conditions of the aeroplane in its environment, including operations degraded by failures.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 9 Reference 9.2.2 Standard	9.2.2 The workload imposed on the flight crew by the design of the aeroplane shall be reasonable at all stages of flight. Particular consideration shall be given to critical stages of flight and critical events which may reasonably be expected to occur during the service life of the aeroplane, such as a contained engine failure or windshear encounter.  Note.— Workload can be affected by both cognitive and physiological factors.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.3	9.3 Ergonomics  During design of the aeroplane, account shall be taken of ergonomic factors including:	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	<ul> <li>a) ease of use and prevention of inadvertent misuse;</li> <li>b) accessibility;</li> <li>c) flight crew working environment;</li> <li>d) cockpit standardization; and</li> <li>e) maintainability.</li> </ul>				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.4 Standard	9.4 Operating environmental factors  The design of the aeroplane shall take into consideration the flight crew operating environment including:  a) effect of aeromedical factors such as level of oxygen, temperature, humidity, noise and vibration;  b) effect of physical forces during normal flight;  c) effect of prolonged operation at high altitude; and  d) physical comfort.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 10 Reference 10.1.0.1 Recommendation	CHAPTER 10. SECURITY  10.1 Aeroplanes used for domestic commercial operations  Recommendation.— International Standards and Recommended Practices set forth in this chapter should be applied by all Contracting States for aeroplanes engaged in domestic commercial operations (air services).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference		
Chapter 10 Reference 10.2 Standard	For aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60, consideration shall be given during the design of the aeroplane to the provision of a least-risk bomb location so as to minimize the effects of a bomb on the aeroplane and its occupants.		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.		
Chapter 10 Reference 10.3.1 Standard	10.3 Protection of the flight crew compartment  10.3.1 In all aeroplanes, which are required by Annex 6, Part I, Chapter 13 to have an approved flight crew compartment door, and for which an application for the issue of a Type Certificate was submitted to the appropriate national authority on or after 20 May 2006, the flight crew compartment bulkheads, floors and ceilings shall be designed to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusions, if these areas are accessible in flight to passengers and cabin crew.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 10 Reference 10.3.2 Recommendation	10.3.2 Recommendation.— In all aeroplanes, which are required by Annex 6, Part I, Chapter 13 to have an approved flight crew compartment door, and for which an application for amending the Type Certificate to include a derivative type design was submitted to the appropriate national authority on or after 20 May 2006, consideration should be given to reinforcing the flight crew compartment bulkheads, floors and ceilings so as to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusions, if these areas are accessible in flight to passengers and cabin crew.  Note.— Standards and Recommended Practices concerning the requirements for the flight crew compartment door in all commercial passenger-carrying aeroplanes are contained in Annex 6, Part I, Chapter 13.		No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 10 Reference 10.4 Standard	For aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60, consideration shall be given to design features that will deter the easy concealment of weapons, explosives or other dangerous objects on board aircraft and that will facilitate search procedures for such objects.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IIIB is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.1.1 Standard	PART IV. HELICOPTERS  PART IVA. HELICOPTERS FOR WHICH APPLICATION FOR CERTIFICATION WAS SUBMITTED ON OR AFTER 22 MARCH 1991	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
	BUT BEFORE 13 DECEMBER 2007				
	Note.— The provisions of Part IVA are the same as those contained in Part IV of Annex 8, Ninth Edition except for modified applicability clauses and cross references.				
	CHAPTER 1. GENERAL				
	1.1.1 The Standards of this part are applicable in respect of all helicopters designated in 1.1.2 that are of types of which the prototype was submitted to the appropriate national authorities for certification on or after 22 March 1991 but before 13 December 2007.				

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#### Report on entire Annex

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.1.2 Standard	1.1.2 The Standards of this part shall apply to helicopters intended for the carriage of passengers or cargo or mail in international air navigation.  Note.— The following Standards do not include quantitative specifications comparable to those found in national airworthiness codes. In accordance with 1.2.1 of Part II, these Standards are to be supplemented by requirements established, adopted or accepted by Contracting States.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.1.3 Standard	1.1.3 The level of airworthiness defined by the appropriate parts of the comprehensive and detailed national code referred to in 1.2.1 of Part II for the helicopters designated in 1.1.2 shall be at least substantially equivalent to the overall level intended by the broad Standards of this part.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.1.4 Standard	1.1.4 Unless otherwise stated, the Standards apply to the complete helicopter including its powerplant, systems and equipment.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 1	1.2 Limitations	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is	
Reference		011101 u.v 21,11pp v.u.u 0.			by incorporation by	
1.2.1	1.2.1 Limiting conditions shall be established for the helicopter, its powerplant and its equipment (see 9.2).				reference in CAR Part 21 of appropriate FARs.	
Standard	Compliance with the Standards of this part shall be established assuming that the helicopter is operated within the limitations specified. The limitations shall be sufficiently removed from any conditions prejudicial to the safety of the helicopter to render the likelihood of accidents arising therefrom extremely remote.					

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### LFTH EDITION - NOVEMBER 2018 Annex 8, Amendment 106

New Zealand	Report on entire Annex  Annex 8, Amendment 106				
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.2.2 Standard	1.2.2 Limiting ranges of mass, centre of gravity location, load distribution, speeds and ambient conditions shall be established within which compliance with all the pertinent Standards in this part is shown, except that combinations of conditions which are fundamentally impossible to achieve need not be considered.  Note 1.— The maximum operating mass and centre of gravity limits may vary, for example, with each altitude and with each separate operating condition, e.g. take-off, en route, landing.  Note 2.— The following items, for instance, may be considered as basic helicopter limitations:  — maximum certificated take-off (including lift-off) mass;  — maximum certificated ground-taxiing mass;  — most forward, rearward and lateral centre of gravity positions in various configurations; and  — maximum certificated cargo sling mass.  Note 3.— Maximum operating mass may be limited by the application of Noise Certification Standards (see Annex 16 — Environmental Protection, Volume 1 — Aircraft Noise, and Annex 6 — Operation of Aircraft, Part III — International Operations — Helicopters).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs. Note: the United States does not allow the weight and centre of gravity limitations to vary as a function of altitude or phase of flight (take-off, cruise, landing, etc.).

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.3 Standard	1.3 Unsafe features and characteristics  Under all anticipated operating conditions, the helicopter shall not possess any feature or characteristic that renders it unsafe.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.4.1 Standard	1.4.1 Compliance with the appropriate airworthiness requirements shall be based on evidence either from tests, calculations, calculations based on tests, or other methods, provided that in each case the accuracy achieved will ensure a level of airworthiness equal to that which would be achieved were direct tests conducted.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.4.2 Standard	1.4.2 The tests of 1.4.1 shall be such as to provide reasonable assurance that the helicopter, its components and equipment are reliable and function correctly under the anticipated operating conditions.	, 11	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.1.1 Standard	2.1.1 Compliance with the Standards prescribed in this chapter shall be established by flight or other tests conducted upon a helicopter or helicopters of the type for which a Certificate of Airworthiness is sought, or by calculations (or other methods) based on such tests, provided that the results obtained by calculations (or other methods) are equal in accuracy to, or conservatively represent, the results of direct testing.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.1.2 Standard	2.1.2 Compliance with each Standard shall be established for all applicable combinations of helicopter mass and centre of gravity position, within the range of loading conditions for which certification is sought.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.1.3 Standard	2.1.3 Where necessary, appropriate helicopter configurations shall be established for the determination of performance in the various stages of flight and for the investigation of the helicopter's flying qualities.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.2.1.1	<ul><li>2.2 Performance</li><li>2.2.1 General</li></ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	2.2.1.1 Sufficient data on the performance of the helicopter shall be determined and scheduled in the flight manual to provide operators with the necessary information for the purpose of determining the total mass of the helicopter on the basis of the values, peculiar to the proposed flight, of the relevant operational parameters, in order that the flight may be made with reasonable assurance that a safe minimum performance for that flight will be achieved.				
Chapter 2 Reference 2.2.1.2 Standard	2.2.1.2 Achieving the performance scheduled for the helicopter shall take into consideration human performance and in particular shall not require exceptional skill or alertness on the part of the pilot.  Note.— Guidance material on human performance can be found in the Human Factors Training Manual (Doc 9683).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.1.3 Standard	2.2.1.3 The scheduled performance of the helicopter shall be consistent with compliance with 1.2.1 and with the operation in logical combinations of those of the helicopter's systems and equipment, the operation of which may affect performance.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2	2.2.2 Minimum performance	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is
Reference		7 11			by incorporation by
2.2.2	At the maximum mass scheduled (see 2.2.3) for take-off and for landing as functions of the take-off or landing site elevation or pressure-altitude either in the standard atmosphere or in				reference in CAR Part 21 of appropriate FARs.
Standard	specified still air atmospheric conditions, and, for water operations, in specified conditions of smooth water, the helicopter shall be capable of accomplishing the minimum performances specified in 2.2.2.1 and 2.2.2.2, respectively, not considering obstacles, or final approach and take-off area length.				
	Note.— This Standard permits the maximum take-off mass and maximum landing mass to be scheduled in the helicopter flight manual against, for example at the take-off or landing site:				
	— elevation, or				
	— pressure-altitude, or				
	<ul> <li>pressure-altitude and atmospheric temperature,</li> </ul>				
	so as to be readily usable when applying the national code on helicopter performance operating limitations.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.2.2.1 Standard	<ul> <li>a) In the event of critical engine failure, at or after the take-off decision point (for performance Class 1) or the defined point after take-off (for performance Class 2), performance Classes 1 and 2 helicopters shall be capable of continuing safe flight, the remaining engine(s) being operated within the approved limitations.</li> <li>b) The minimum performance at all stages of take-off and climb shall be sufficient to ensure that under conditions of operation departing slightly from the idealized conditions for which data is scheduled (see 2.2.3), the departure from the scheduled values is not disproportionate.</li> </ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.2.2 Standard	<ul> <li>a) Starting from the approach configuration, in the event of critical engine failure at or before the landing decision point (performance Class 1) or the defined point before landing (performance Class 2), the helicopter shall be capable of continuing safe flight, the remaining engine(s) being operated within the approved limitations.</li> <li>b) Starting from the landing configuration, the helicopter shall be capable, in the event of a balked landing, of making a climb-out, with all engines operating.</li> </ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 2 Reference 2.2.3 Standard	2.2.3 Scheduling of performance  Performance data shall be determined and scheduled in the flight manual so that its application by means of the operating rules to which the helicopter is to be operated in accordance with 5.1.2 of Annex 6, Part III, will provide a safe relationship between the performance of the helicopter and the aerodromes, heliports and routes on which it is capable of being operated. Performance data shall be determined and scheduled for the following stages for the ranges of mass, altitude or pressure-altitude, wind velocity, and other ambient conditions and any other operational variables for which the helicopter is to be certificated, and additionally for amphibians, water surface conditions and strength of current.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 2 Reference 2.2.3.1 Standard	2.2.3.1 <i>Take-off.</i> The take-off performance data shall include the take-off distance required and the take-off path. For performance Class 1 helicopters, it shall also include the rejected take-off distance required.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 2 Reference 2.2.3.1.1 Standard	2.2.3.1.1 Take-off decision point. (For performance Class 1 helicopters only.) The take-off decision point shall be the point in the take-off phase used in determining take-off performance and from which either a rejected take-off may be made or a take-off safely continued, with the critical engine inoperative.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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TH EDITION - NOVEMBER 2018  Annex 8, Amendment 106							
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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.2.3.1.2 Standard	2.2.3.1.2 Take-off distance required. (For performance Class 1 helicopters only.) The take-off distance required shall be the horizontal distance required from the start of the take-off to the point at which the take-off safety speed (VTOSS), a selected height above the take-off surface, and a positive climb gradient are achieved, following failure of the critical engine at the take-off decision point, the remaining engine(s) operating within approved operating limits.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.3.1.3 Standard	2.2.3.1.3 Rejected take-off distance required. (For performance Class 1 helicopters only.) The rejected take-off distance required shall be the horizontal distance required from the start of the take-off to the point where the helicopter comes to a complete stop following an engine failure and rejection of the take-off at the take-off decision point.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.3.1.4 Standard	2.2.3.1.4 Take-off distance required. (For performance Classes 2 and 3 helicopters only.) The take-off distance required shall be the horizontal distance required from the start of take-off to the point where the best rate of climb speed (Vy) or the best angle of climb speed (Vx) or a selected intermediate speed (provided this speed does not involve flight within the avoid areas of the height-velocity diagrams) and a selected height above the take-off surface are achieved, all engines operating at approved take-off power.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.2.3.2 Standard	<ul> <li>2.2.3.2 En route. The en-route performance shall be the climb, cruise or descent performance with:</li> <li>a) the critical engine inoperative;</li> <li>b) the two critical engines inoperative in the case of helicopters having three or more engines; and</li> <li>c) the operating engine(s) not exceeding the power for which they are certificated.</li> </ul>	See appropriate FAR.	Less protective or partially implemented or not implemented	(Notified by the United States):- En-route performance is based solely on climb performance for both all-engines operating and one engine inoperative situations (Categories A and B). There is no comparable requirement for helicopters weighing less than 6 000 pounds.	
Chapter 2 Reference 2.2.3.3 Standard	2.2.3.3 Landing. The landing performance data shall include the landing distance required and, for performance Class 1 helicopters, the landing decision point.	CAR Part 21, Appendix C.	No Difference	·	Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.3.3.1 Standard	2.2.3.3.1 Landing decision point. (For performance Class 1 helicopters only.) The landing decision point shall be the latest point in the approach phase from which either a landing may be made or a rejected landing (go-around) safely initiated, with the critical engine inoperative.	See appropriate FAR.	Less protective or partially implemented or not implemented	(Notified by the United States):- The landing decision point (LDP) is required for Category A helicopters only.	
Chapter 2 Reference 2.2.3.3.2 Standard	2.2.3.3.2 Landing distance required. The landing distance required shall be the horizontal distance required to land and come to a complete stop from a point on the approach flight path at a selected height above the landing surface.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.3 Standard	2.3 Flying qualities  The helicopter shall comply with the Standards of 2.3 at all altitudes up to the maximum anticipated altitude relevant to the particular requirement in all temperature conditions relevant to the altitude in question and for which the helicopter is approved.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.1 Standard	2.3.1 Controllability  The helicopter shall be controllable and manoeuvrable under all anticipated operating conditions, and it shall be possible to make smooth transitions from one flight condition to another (e.g. turns, sideslips, changes of engine power, changes of helicopter configurations) without requiring exceptional skill, alertness or strength on the part of the pilot even in the event of failure of any engine. A technique for safely controlling the helicopter shall be established for all stages of flight and helicopter configurations for which performance is scheduled.  *Note.— This Standard is intended, among other things, to relate to operation in conditions of no appreciable atmospheric turbulence and also to ensure that there is no undue deterioration of the flying qualities in turbulent air.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.1.1 Standard	2.3.1.1 Controllability on the ground (or water). The helicopter shall be controllable on the ground (or on the water) during taxiing, take-off and landing under the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.3.1.2 Standard	2.3.1.2 Controllability during take-off. The helicopter shall be controllable in the event of sudden failure of the critical engine at any point in the take-off, when the helicopter is handled in the manner associated with the scheduling of the take-off data.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.2 Standard	2.3.2 Trim  The helicopter shall have such trim and handling capabilities as to ensure that the demands made on the pilot's attention and ability to maintain a desired flight condition are not excessive when account is taken of the stage of flight at which these demands occur and their duration. In the event of a malfunction of the systems associated with the flight controls, there shall not be any significant deterioration of the handling characteristics.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.3 Standard	The helicopter shall have such stability in relation to its other flight characteristics, performance, structural strength and most probable operating conditions (e.g. helicopter configurations and speed ranges) as to ensure that demands made on the pilot's powers of concentration are not excessive when the stage of the flight at which these demands occur and their duration are taken into account. The stability of the helicopter shall not, however, be such that excessive demands are made on the pilot's strength or that the safety of the helicopter is prejudiced by lack of manoeuvrability in emergency conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.3.4.1 Standard	2.3.4 Autorotation  2.3.4.1 Rotor speed control. The autorotation characteristics of the helicopter shall be such as to enable the pilot to control the rotor speed to within prescribed limits and to maintain full control of the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.4.2 Standard	2.3.4.2 Behaviour following a power loss. The behaviour of the helicopter following a power loss shall not be so extreme as to make difficult a prompt recovery of rotor speed without exceeding the airspeed or strength limitations of the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.4.3 Standard	2.3.4.3 Autorotation airspeeds. The autorotation airspeeds recommended for maximum range and minimum rate of descent shall be established.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.5 Standard	2.3.5 Flutter and vibration  It shall be demonstrated by suitable tests that all parts of the helicopter are free from flutter and excessive vibration in all helicopter configurations under all speed conditions within the operating limitations of the helicopter (see 1.2.2). There shall be no vibration severe enough to interfere with control of the helicopter, to cause structural damage or to cause excessive fatigue to the flight crew.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 3 Reference 3.1 Standard	CHAPTER 3. STRUCTURE  3.1 General  The Standards of this chapter apply to the helicopter structure consisting of all portions of the helicopter, the failure of which would seriously endanger the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.1.1 Standard	3.1.1 Mass and mass distribution  Unless otherwise stated, all structural Standards shall be complied with when the mass is varied over the applicable range and is distributed in the most adverse manner, within the operating limitations on the basis of which certification is sought.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.1.2 Standard	3.1.2 Limit loads  Except as might be otherwise qualified, the external loads and the corresponding inertia loads, or resisting loads obtained for the various loading conditions prescribed in 3.4, 3.5 and 3.6 shall be considered as limit loads.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.1.3 Standard	3.1.3 Strength and deformation  In the various loading conditions prescribed in 3.4, 3.5 and 3.6, no part of the helicopter structure shall sustain detrimental deformation at any load up to and including the limit load, and the helicopter structure shall be capable of supporting the ultimate load.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.2.1 Standard	3.2 Airspeeds  3.2.1 Design airspeeds  Design airspeeds shall be established for which the helicopter structure is designed to withstand the corresponding manoeuvring and gust loads in accordance with 3.4.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.2.2 Standard	3.2.2 Limiting airspeeds  Limiting airspeeds, based on the corresponding design airspeeds with safety margins, where appropriate, in accordance with 1.2.1, shall be included in the helicopter flight manual as part of the operating limitations (see 9.2.2). When airspeed limitations are a function of mass, mass distribution, altitude, rotor speed, power or other factors, airspeed limitations based on the critical combination of these factors shall be established.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 3 Reference 3.3 Standard	3.3 Main rotor(s) rotational speed limits  A range of main rotor(s) speeds shall be established that:  a) with power on, provides adequate margin to accommodate the variations in rotor speed occurring in any appropriate manoeuvre and is consistent with the kind of governor or synchronizer used; and  b) with power off, allows each appropriate autorotative manoeuvre to be performed throughout the ranges of airspeed and mass for which certification is requested.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.4 Standard	3.4 Flight loads  The flight loading conditions of 3.4.1, 3.4.2 and 3.6 shall be considered for the range of mass and mass distributions prescribed in 3.1.1 and at airspeeds established in accordance with 3.2.1. Asymmetrical as well as symmetrical loading shall be taken into account. The air, inertia and other loads resulting from the specified loading conditions shall be distributed so as to approximate actual conditions closely or to represent them conservatively.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 3 Reference 3.4.1 Standard	3.4.1 Manoeuvring loads  Manoeuvring loads shall be computed on the basis of manoeuvring load factors appropriate to the manoeuvres permitted by the operating limitations. They shall not be less than values that experience indicates will be adequate for the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.4.2 Standard	3.4.2 Gust loads  Gust loads shall be computed for vertical and horizontal gust velocities that statistics or other evidence indicates will be adequate for the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.5 Standard	3.5 Ground and water loads  The structure shall be able to withstand all the loads due to the reactions of the ground or water surface, as applicable, that are likely to arise during start-up, ground and water taxiing, lift-off, touchdown and rotor braking.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 3 Reference 3.5.1 Standard	3.5.1 Landing conditions  The landing conditions at the design take-off mass and at the design landing mass shall include such symmetrical and asymmetrical attitudes of the helicopter at ground or water contact, such velocities of descent, and such other factors affecting the loads imposed upon the structure as might be present in the anticipated operating conditions.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 3 Reference 3.6 Standard	3.6 Miscellaneous loads  In addition to or in conjunction with the manoeuvring and gust loads and with the ground and water loads, consideration shall be given to all other loads (flight control loads, cabin pressures, effects of engine operation, loads due to changes of configuration, loads due to external mass, etc.) that are likely to occur in the anticipated operating conditions.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 3 Reference 3.7 Standard	3.7 Flutter, divergence and vibration  Each part of the helicopter structure shall be free from excessive vibration or oscillation (ground resonance, flutter, etc.) under each appropriate speed and power condition.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3	3.8 Fatigue strength	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is
Reference	Tangue strength	CART art 21, Appendix C.	No Difference		by incorporation by
3.8	The strength and fabrication of the helicopter shall be such as				reference in CAR Part 21 of
	to ensure that the probability of disastrous fatigue failure of the helicopter's structure under repeated loads and vibratory				appropriate FARs.
Standard	loads in the anticipated operating conditions is extremely remote.				
	Note 1.— This Standard can be complied with by the				
	establishment of "safe lives" or "fail safe" characteristics of				
	the structure, having regard to the reasonable expected load				
	magnitudes and frequencies under the anticipated operating				
	conditions and inspection procedures. For some parts of the structure, it might be necessary to establish "fail safe"				
	characteristics as well as "safe lives".				
	Note 2.— Guidance material concerning the expression				
	"extremely remote" is contained in the Airworthiness Manual				
	(Doc 9760).				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.1	CHAPTER 4. DESIGN AND CONSTRUCTION	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	Details of design and construction shall be such as to give reasonable assurance that all helicopter parts will function effectively and reliably in the anticipated operating conditions. They shall be based upon practices that experience has proven to be satisfactory or that are substantiated by special tests or by other appropriate investigations or both. They shall also consider human factors principles.  Note.— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc 9683).				
Chapter 4 Reference 4.1.1 Standard	4.1.1 Substantiating tests  The functioning of all moving parts essential to the safe operation of the helicopter shall be demonstrated by suitable tests in order to ensure that they will function correctly under all operating conditions for such parts.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 or appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.1.2 Standard	4.1.2 Materials  All materials used in parts of the helicopter essential for its safe operation shall conform to approved specifications. The approved specifications shall be such that materials accepted as complying with the specifications will have the essential properties assumed in the design.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.3 Standard	4.1.3 Manufacturing methods  The methods of manufacturing and assembly shall be such as to produce a consistently sound structure which shall be reliable with respect to maintenance of strength in service.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.4 Standard	4.1.4 Protection  The structure shall be protected against deterioration or loss of strength in service due to weathering, corrosion, abrasion or other causes, which could pass unnoticed, taking into account the maintenance the helicopter will receive.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.5 Standard	4.1.5 Inspection provisions  Adequate provision shall be made to permit any necessary examination, replacement or reconditioning of parts of the helicopter that require such attention, either periodically or after unusually severe operations.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT	State Legislation,	Level of	Text of the difference to be	Comments including the
	Standard or Recommended Practice	Regulation or Document Reference	implementation of SARP's	notified to ICAO	reason for the difference
Chapter 4	4.1.6 Systems design features	CAR Part 21, Appendix C.	Less protective	4.1.6e (notified by the	Compliance with Part IV is
Reference			or partially	United States):- The United	by incorporation by
4.1.6	Special consideration shall be given to design features that affect the ability of the flight crew to maintain controlled flight. This shall include at least the following:		implemented or not implemented	States does not provide criteria relative to the fire protection/prevention for	reference in CAR Part 21 of appropriate FARs.
Standard	<ul> <li>a) Controls and control systems. The design of the controls and control systems shall be such as to minimize the possibility of jamming, inadvertent operation and unintentional engagement of control surface locking devices.</li> <li>i) Each control and control system shall operate with the ease, smoothness and effectiveness appropriate to its function.</li> <li>ii) Each element of each flight control system shall be designed to minimize the probability of any incorrect assembly that could result in the malfunction of the system.</li> </ul>		implemented	interior furnishing materials replaced during major refurbishment. The fire protection levied is dependent on the original certification basis.	
	<ul> <li>b) Crew environment. The design of the flight crew compartment shall be such as to minimize the possibility of incorrect or restricted operation of the controls by the crew, due to fatigue, confusion or interference. Consideration shall be given at least to the following: layout and identification of controls and instruments, rapid identification of emergency situations, sense of controls, ventilation, heating and noise.</li> <li>c) Pilot vision. The arrangement of the pilot compartment shall be such as to afford a sufficiently extensive, clear and undistorted field of vision for the safe operation of the helicopter, and to prevent glare and reflections that would interfere with the pilot's</li> </ul>				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	shall permit, under precipitation conditions, sufficient vision for the normal conduct of flight and for the execution of approaches and landings.				
	d) Provision for emergencies. Means shall be provided which shall either automatically prevent, or enable the flight crew to deal with, emergencies resulting from foreseeable failures of equipment and systems, the failure of which would endanger the helicopter. Reasonable provisions shall be made for continuation of essential services following engine or system failures to the extent that such failures are catered for in the performance and operating limitations specified in the Standards in this Annex and in Annex 6, Part III.				
	e) Fire precautions. The design of the helicopter and the materials used in its manufacture, including cabin interior furnishing materials replaced during major refurbishing, shall be such as to minimize the possibility of in-flight and ground fires and also to minimize the production of smoke and toxic gases in the event of a fire. Means shall be provided to contain or to detect and extinguish, wherever possible, all accessible fires as might occur in such a way that no additional danger to the helicopter is caused.				
	f) Incapacitation of occupants. Design precautions shall be taken to protect against possible instances of cabin depressurization and against the presence of smoke or other toxic gases that could incapacitate the occupants of the helicopter.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.1.7 Standard	4.1.7 Emergency landing provisions  Provisions shall be made in the design of the helicopter to protect the occupants from fire and effects of deceleration in the event of an emergency landing. Facilities shall be provided for the rapid evacuation of the helicopter in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the helicopter. On helicopters certificated for ditching conditions, provisions shall also be made in the design to give maximum practicable assurance that safe evacuation from the helicopter of passengers and crew can be executed in case of ditching.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.8 Standard	Adequate provisions shall be made in the design to minimize the risk that ground handling operations (e.g. towing, jacking) may cause damage, which could pass unnoticed, to the parts of the helicopter essential for its safe operation. The protection that any limitations and instructions for such operations might provide may be taken into account.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5 Reference 5.1 Standard	CHAPTER 5. ENGINES  5.1 Scope  The Standards of this chapter shall apply to engines of all types that are used on the helicopter as primary propulsion units.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.2 Standard	5.2 Design, construction and functioning  The engine complete with accessories shall be designed and constructed so as to function reliably within its operating limitations under the anticipated operating conditions when properly installed in the helicopter in accordance with Chapter 6 and with the suitable rotor and power transmission installed.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3 Standard	5.3 Declared ratings, conditions and limitations  The power ratings and the conditions of the atmosphere upon which they are based and all operating conditions and limitations which are intended to govern the operation of the engine shall be declared.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5	5.4 Tests	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is
Reference 5.4	An engine of the type shall complete satisfactorily such tests as are necessary to verify the validity of the declared ratings,				by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	conditions and limitations and to ensure that it will operate satisfactorily and reliably. The tests shall include at least the following:				
	a) Power calibration. Tests shall be conducted to establish the power characteristics of the engine when new and also after the tests in b) and c). There shall be no excessive decrease in power at the conclusion of all the tests specified.				
	b) Operation. Tests shall be conducted to ensure that starting, idling, acceleration, vibration, overspeeding and other characteristics are satisfactory and to demonstrate adequate margins of freedom from detonation, surge or other detrimental conditions as may be appropriate to the particular type engine.				
	c) Endurance. Tests of sufficient duration shall be conducted at such powers, engine and rotor speeds and other operating conditions as are necessary to demonstrate reliability and durability of the engine. They shall also include operation under conditions in excess of the declared limits to the extent that such limitations might be exceeded in actual service.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.1 Standard	CHAPTER 6. ROTOR AND POWER TRANSMISSION SYSTEMS AND POWERPLANT INSTALLATION  6.1 General  The powerplant installation, including rotor and power transmission systems, shall comply with the Standards of Chapter 4 and with the Standards of this chapter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.2 Standard	6.2 Design, construction and functioning  The rotor and power transmission systems assembly complete with accessories shall be designed and constructed so as to function reliably within its operating limitations under the anticipated operating conditions when properly fitted to the engine and installed in the helicopter in accordance with this chapter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.3 Standard	6.3 Declared ratings, conditions and limitations  The power ratings and all operating conditions and limitations which are intended to govern the operation of the rotor and power transmission systems shall be declared.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.3.1 Standard	6.3.1 Maximum and minimum rotor rotational speed limitations  Maximum and minimum speeds for the rotors in both power-on and power-off conditions shall be established. Any operating conditions (e.g. airspeed) that affect such maxima or minima shall be declared.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.3.2 Standard	6.3.2 Rotor underspeed and overspeed warnings  When the helicopter is made to approach a rotor rotational speed limit, with or without engines inoperative, clear and distinctive warnings shall be apparent to the pilot. The warnings and initial characteristics of the condition shall be such as to enable the pilot to arrest the development of the condition after the warning begins and to recover the rotor rotational speed to within prescribed normal limits and to maintain full control of the helicopter.	7	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
6.4 Tests	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is
Rotor and power transmission systems shall complete satisfactorily such tests as are necessary to ensure that they				by incorporation by reference in CAR Part 21 of appropriate FARs.
ratings, conditions and limitations. The tests shall include at least the following:				
a) Operation. Tests shall be conducted to ensure that strength, vibration and overspeeding characteristics are satisfactory and to demonstrate proper and reliable functioning of pitch changing and control mechanisms and free wheel mechanisms.				
b) Endurance. Tests of sufficient duration shall be conducted at such powers, engine and rotor speeds and other operating conditions as are necessary to demonstrate reliability and durability of the rotor and power transmission systems.				
6.5 Compliance with engine and rotor and power transmission systems limitations  The powerplant installation shall be so designed that the engines and rotor and power transmission systems are capable of being used in the anticipated operating conditions. In conditions established in the helicopter flight manual, the helicopter shall be capable of being operated without exceeding the limitations established for the engines and rotor and power transmission systems in accordance with Chapter 5 and this chapter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
	AIRWORTHINESS OF AIRCRAFT  6.4 Tests  Rotor and power transmission systems shall complete satisfactorily such tests as are necessary to ensure that they will operate satisfactorily and reliably within the declared ratings, conditions and limitations. The tests shall include at least the following:  a) Operation. Tests shall be conducted to ensure that strength, vibration and overspeeding characteristics are satisfactory and to demonstrate proper and reliable functioning of pitch changing and control mechanisms and free wheel mechanisms.  b) Endurance. Tests of sufficient duration shall be conducted at such powers, engine and rotor speeds and other operating conditions as are necessary to demonstrate reliability and durability of the rotor and power transmission systems.  6.5 Compliance with engine and rotor and power transmission systems.  The powerplant installation shall be so designed that the engines and rotor and power transmission systems are capable of being used in the anticipated operating conditions. In conditions established in the helicopter flight manual, the helicopter shall be capable of being operated without exceeding the limitations established for the engines and rotor and power transmission systems in accordance with	Standard or Recommended Practice  CAR Part 21, Appendix C.  Rotor and power transmission systems shall complete satisfactorily such tests as are necessary to ensure that they will operate satisfactorily and reliably within the declared ratings, conditions and limitations. The tests shall include at least the following:  a) Operation. Tests shall be conducted to ensure that strength, vibration and overspeeding characteristics are satisfactory and to demonstrate proper and reliable functioning of pitch changing and control mechanisms and free wheel mechanisms.  b) Endurance. Tests of sufficient duration shall be conducted at such powers, engine and rotor speeds and other operating conditions as are necessary to demonstrate reliability and durability of the rotor and power transmission systems.  CAR Part 21, Appendix C.  CAR Part 21, Appendix C.  The powerplant installation shall be so designed that the engines and rotor and power transmission systems are capable of being used in the anticipated operating conditions. In conditions established in the helicopter flight manual, the helicopter shall be capable of being operated without exceeding the limitations established for the engines and rotor and power transmission systems in accordance with	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice  6.4 Tests  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  No Difference  State Legislation, Regulation or Document Reference  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  No Difference  State Legislation, Regulation or Document Reference  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.	Standard or Recommended Practice  6.4 Tests  Rotor and power transmission systems shall complete satisfactorily such tests as are necessary to ensure that they will operate satisfactorily and reliably within the declared ratings, conditions and limitations. The tests shall include at least the following:  a) Operation. Tests shall be conducted to ensure that strength, vibration and overspeeding characteristics are satisfactory and to demonstrate proper and reliable functioning of pitch changing and control mechanisms and free wheel mechanisms.  b) Endurance. Tests of sufficient duration shall be conducted at such powers, engine and rotor speeds and other operating conditions as are necessary to demonstrate reliability and durability of the rotor and power transmission systems limitations  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  No Difference the notified to ICAO of support to the declared at the conducted at such powers, engine and rotor speeds and other operating conditions as are necessary to demonstrate reliability and durability of the rotor and power transmission systems limitations  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  No Difference transmission systems limitations  CAR Part 21, Appendix C.  No Difference transmission systems are capable of being used in the anticipated operating conditions. In conditions established in the helicopter flight manual, the helicopter shall be capable of being used in the engine and rotor and power transmission systems in accordance with

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.6 Standard	6.6 Control of engine rotation  In those installations where continued rotation of a failed engine would increase the hazard of fire or of a serious structural failure, means shall be provided for the crew to stop the rotation of the engine in flight or to reduce it to a safe level.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.7 Standard	6.7 Engine restarting  Means shall be provided for restarting an engine in flight at altitudes up to a declared maximum altitude.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.8.1 Standard	6.8 Arrangement and functioning  6.8.1 Independence of engines  For performance Classes 1 and 2 helicopters, the powerplant shall be arranged and installed so that each engine together with its associated systems is capable of being controlled and operated independently from the others and so that there is at least one arrangement of the powerplant and systems in which any failure, unless the probability of its occurrence is extremely remote, cannot result in a loss of more power than that resulting from complete failure of the critical engine.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 6 Reference 6.8.2 Standard	6.8.2 Rotor and power transmission systems vibration  The vibration stresses for the rotor and power transmission systems shall be determined and shall not exceed values that have been found safe for operation within the operating limitations established for the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 6 Reference 6.8.3 Standard	The cooling system shall be capable of maintaining powerplant and power transmission systems temperatures within the established limits (see 6.5) at ambient air temperatures approved for operation of the helicopter. The maximum and minimum air temperatures for which the powerplant and power transmission systems have been established as being suitable shall be scheduled in the helicopter flight manual.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 6 Reference 6.8.4 Standard	The fuel, oil, air induction and other systems associated with each engine, each power transmission unit and each rotor shall be capable of supplying the appropriate unit in accordance with its established requirements, under all conditions affecting the functioning of the systems (e.g. engine power setting, helicopter attitudes and accelerations, atmospheric conditions, fluid temperatures) within the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference		
Chapter 6	6.8.5 Fire protection	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is		
Reference	·	, , , , , , , , , , , , , , , , , , ,			by incorporation by		
6.8.5	For designated fire zones where the potential fire hazards are particularly serious because of the proximity of ignition sources to combustible materials, the following shall apply in				reference in CAR Part 21 of appropriate FARs.		
Standard	<ul> <li>a) Isolation. Such zones shall be isolated by fire-resisting material from other zones of the helicopter where the presence of fire would jeopardize continued flight, taking into account the probable points of origin and paths of propagation of fire.</li> <li>b) Flammable fluids. Flammable fluid system components located in such zones shall be capable of containing the fluid when exposed to fire conditions. Means shall be provided for the crew to shut off the flow of hazardous quantities of flammable fluids into such zones if a fire occurs.</li> <li>c) Fire detection. There shall be provided a sufficient number of fire detectors so located as to ensure rapid detection of any fire that might occur in such zones.</li> <li>d) Fire extinguishment. Such zones shall be provided with a fire extinguisher system capable of extinguishing any fire likely to occur therein, unless the degree of isolation, quantity of combustibles, fire resistance of the structure and other factors are such that any fire likely to occur in the zone would not jeopardize the safety of the helicopter.</li> </ul>						

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference		
Chapter 7	CHAPTER 7. INSTRUMENTS AND	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is		
Reference	<b>EQUIPMENT</b>				by incorporation by		
7.1					reference in CAR Part 21 of appropriate FARs.		
Standard	7.1 Required instruments and equipment						
	The helicopter shall be provided with approved instruments and equipment necessary for the safe operation of the helicopter in the anticipated operating conditions. These shall include the instruments and equipment necessary to enable the crew to operate the helicopter within its operating limitations. Instruments and equipment design shall observe human factors principles.						
	Note 1.— Instruments and equipment additional to the minimum necessary for the issuance of a Certificate of Airworthiness are prescribed in Annex 6, Part III, for particular circumstances or on particular kinds of routes.  Note 2.— Guidance material on human factors principles can be found in the Human Factors Training						
	Manual (Doc 9683).						
Chapter 7	7.2 Installation	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is		
Reference		• ••			by incorporation by		
	Instrument and equipment installations shall comply with the Standards of Chapter 4.				reference in CAR Part 21 of appropriate FARs.		
Standard							

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Chapter 7 Reference 7.3 Standard	7.3 Safety and survival equipment  Prescribed safety and survival equipment that the crew or passengers are expected to use or operate at the time of an emergency shall be reliable, readily accessible and easily identified, and its method of operation shall be plainly marked.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 7 Reference 7.4.1 Standard	7.4. Navigation lights and anti-collision lights  7.4.1 The lights required by Annex 2 — Rules of the Air to be displayed by helicopters in flight or operating on the movement area of an aerodrome or a heliport shall have intensities, colours, fields of coverage and other characteristics such that they furnish the pilot of another aircraft or personnel on the ground with as much time as possible for interpretation and for subsequent manoeuvre necessary to avoid a collision. In the design of such lights, due account shall be taken of the conditions under which they may reasonably be expected to perform these functions.  Note 1.— It is likely that lights will be viewed against a variety of backgrounds, such as typical city lighting, clear starry sky, moonlit water and daytime conditions of low background luminance. Furthermore, collision risk situations are most likely to arise in terminal control areas in which aircraft are manoeuvring in the intermediate and lower flight levels at closing speeds that are unlikely to exceed 900 km/h (500 kt).  Note 2.— Detailed technical specifications for exterior lights for helicopters can be found in the Airworthiness Manual (Doc 9760).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Chapter 7 Reference 7.4.2 Standard	7.4.2 Lights shall be installed in helicopters so as to minimize the possibility that they will:  a) adversely affect the satisfactory performance of the flight crews' duties; or  b) subject an outside observer to harmful dazzle.  Note.— In order to avoid the effects mentioned in 7.4.2, it will be necessary in some cases to provide means whereby the pilot can switch off or reduce the intensity of the flashing lights.		Less protective or partially implemented or not implemented	(Notified by the United States):- Minimum acceptable intensities are prescribed for navigation lights and anti-collision lights, i.e. no reduction below these levels is possible.	

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Chapter 9 Reference 9.1 Standard	CHAPTER 8. ELECTRICAL SYSTEMS  The electrical system shall be so designed and installed as to ensure that it will perform its intended function under any foreseeable operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
	CHAPTER 9. OPERATING LIMITATIONS AND INFORMATION				
	9.1 General  The operating limitations within which compliance with the Standards of this Annex is determined, together with any other information necessary to the safe operation of the helicopter, shall be made available by means of a helicopter flight manual, markings and placards, and such other means as may effectively accomplish the purpose. The limitations and information shall include at least those prescribed in 9.2, 9.3 and 9.4.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.2 Standard	9.2 Operating limitations  Limitations which there is a risk of exceeding in flight and which are defined quantitatively shall be expressed in suitable units and corrected if necessary for errors in measurements so that the flight crew can, by reference to the instruments available to them, readily determine when the limitations are reached.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.1 Standard	9.2.1 Loading limitations  The loading limitations shall include all limiting masses, centre of gravity positions, mass distributions and floor loadings (see 1.2.2).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.2 Standard	9.2.2 Airspeed limitations  The airspeed limitations shall include all speeds (see 3.2) that are limiting from the standpoint of structural integrity or flying qualities of the helicopter, or from other considerations. These speeds shall be identified with respect to the appropriate helicopter configurations and other pertinent factors.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.3 Standard	9.2.3 Powerplant and power transmission limitations  The powerplant limitations shall include all those established for the various powerplant and transmission components as installed in the helicopter (see 6.5 and 6.6).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.2.4 Standard	9.2.4 Rotor limitations  Limitations on rotor speeds shall include maximum and minimum rotor speeds for power-off (autorotation) and power-on conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.5 Standard	9.2.5 Limitations on equipment and systems  The limitations on equipment and systems shall include all those established for the various equipment and systems as installed in the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.6 Standard	9.2.6 Miscellaneous limitations  Miscellaneous limitations shall include any necessary limitations with respect to conditions found to be prejudicial to the safety of the helicopter (see 1.2.1).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.2.7 Standard	9.2.7 Flight crew limitations  The flight crew limitations shall include the minimum number of flight crew personnel necessary to operate the helicopter, having regard, among other things, to the accessibility to the appropriate crew members of all necessary controls and instruments and to the execution of the established emergency procedures.  Note.— The circumstances in which the flight crew shall include members in addition to the minimum flight crew are defined in Annex 6, Part III.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.3.1 Standard	9.3.1 Types of eligible operations  There shall be listed the particular types of operations, as may be defined in Annex 6, Part III, or be generally recognized, for which the helicopter has been shown to be eligible by virtue of compliance with the appropriate airworthiness requirements.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.3.2 Standard	9.3.2 Loading information  The loading information shall include the empty mass of the helicopter, together with a definition of the condition of the helicopter at the time of weighing, the corresponding centre of gravity position, and the reference points and datum lines to which the centre of gravity limits are related.  Note.— Usually the empty mass excludes the mass of the crew and payload, the usable fuel supply and the drainable oil; it includes the mass of all fixed ballast, unusable fuel supply, undrainable oil, total quantity of engine coolant and total quantity of hydraulic fluid.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.3.3 Standard	9.3.3 Operating procedures  A description shall be given of normal and emergency operating procedures which are peculiar to the particular helicopter and necessary for its safe operation. These shall include procedures to be followed in the event of failure of one or more engine(s).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.3.4 Standard	9.3.4 Handling information  Sufficient information shall be given on any significant or unusual features of the helicopter characteristics.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.4 Standard	9.4 Performance information  The performance of the helicopter shall be scheduled in accordance with 2.2. There shall be included information regarding the various helicopter configurations and powers involved and the relevant speeds, together with information that would assist the flight crew in attaining the performance as scheduled.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.5 Standard	9.5 Helicopter flight manual  A flight manual shall be made available. It shall identify clearly the specific helicopter or series of helicopters to which it is related. The flight manual shall include at least the limitations, information and procedures specified in this chapter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.6.1 Standard	9.6 Markings and placards  9.6.1 Markings and placards on instruments, equipment, controls, etc., shall include such limitations or information as necessary for the direct attention of the flight crew during flight.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.6.2 Standard	9.6.2 Markings and placards or instructions shall be provided to give any information that is essential to the ground crew in order to preclude the possibility of mistakes in ground servicing (e.g. towing, refuelling) that could pass unnoticed and that could jeopardize the safety of the helicopter in subsequent flights.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.1.1 Standard	PART IVB. HELICOPTERS FOR WHICH APPLICATION FOR CERTIFICATION WAS SUBMITTED ON OR AFTER 13 DECEMBER 2007 CHAPTER 1. GENERAL	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
	1.1.1 Applicability  1.1.1 The Standards of this part are applicable in respect of all helicopters designated in 1.1.2 for which an application for the issue of a Type Certificate was submitted to the appropriate national authorities on or after 13 December 2007.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.1.2 Standard	1.1.2 Except for those Standards and Recommended Practices which specify a different applicability, the Standards and Recommended Practices of this part shall apply to helicopters greater than 750 kg maximum certificated take-off mass intended for the carriage of passengers or cargo or mail in international air navigation.  Note.— The following Standards do not include quantitative specifications comparable to those found in national airworthiness codes. In accordance with 1.2.1 of Part II, these Standards are to be supplemented by requirements established, adopted or accepted by Contracting States.	, II	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.1.3 Standard	1.1.3 The level of airworthiness defined by the appropriate parts of the comprehensive and detailed national code referred to in 1.2.1 of Part II for the helicopters designated in 1.1.2 shall be at least substantially equivalent to the overall level intended by the broad Standards of this part.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.1.4 Standard	1.1.4 Unless otherwise stated, the Standards apply to the complete helicopter including its powerplant, rotors, systems and equipment.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.2.1 Standard	1.2.1 Limiting conditions shall be established for the helicopter, its powerplant, rotors, systems and equipment (see 7.2). Compliance with the Standards of this part shall be established assuming that the helicopter is operated within the limitations specified. The safety implications of exceeding these operating limits shall be considered.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.2.2 Standard	1.2.2 Limiting ranges of any parameter whose variation may compromise the safe operation of the helicopter, e.g. mass, centre of gravity location, load distribution, speeds, ambient air temperature and altitude, shall be established within which compliance with all the pertinent Standards of this part is shown.  Note 1.— The maximum operating mass and centre of gravity limits may vary, for example, with each altitude and with each practicably separate operating condition, e.g. take-off, en route, landing.  Note 2.— Maximum operating mass may be limited by the application of noise certification Standards (see Annex 16 — Environmental Protection, Volume 1 — Aircraft Noise, and Annex 6 — Operation of Aircraft, Part III — International Operations — Helicopters).		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.3 Standard	1.3 Unsafe features and characteristics  Under all anticipated operating conditions, the helicopter shall not possess any feature or characteristic that renders it unsafe.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.4 Standard	The means by which compliance with the appropriate airworthiness requirements is demonstrated shall ensure that in each case the accuracy achieved will be such as to provide reasonable assurance that the helicopter, its components and equipment comply with the requirements and are reliable and function correctly under the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.1.1 Standard	CHAPTER 2. FLIGHT  2.1 General  2.1.1 Compliance with the Standards prescribed in this chapter shall be established by flight or other tests conducted upon a helicopter or helicopters of the type for which a Type Certificate is sought, or by calculations (or other methods) based on such tests, provided that the results obtained by calculations (or other methods) are equal in accuracy to, or conservatively represent, the results of direct testing.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.1.2 Standard	2.1.2 Compliance with each Standard shall be established for all applicable combinations of helicopter mass and centre of gravity position, within the range of loading conditions for which certification is sought.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.1.3 Standard	2.1.3 Where necessary, appropriate helicopter configurations shall be established for the determination of performance in the various stages of flight and for the investigation of the helicopter's flying qualities.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.1 Standard	2.2.1 Sufficient data on the performance of the helicopter shall be determined and scheduled in the flight manual to provide operators with the necessary information for the purpose of determining the total mass of the helicopter on the basis of the values, peculiar to the proposed flight, of the relevant operational parameters, in order that the flight may be made with reasonable assurance that a safe minimum performance for that flight will be achieved.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.2 Standard	2.2.2 Achieving the performance scheduled for the helicopter shall take into consideration human performance and in particular shall not require exceptional skill or alertness on the part of the flight crew.  Note.— Guidance material on human performance can be found in the Human Factors Training Manual (Doc 9683).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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	Standard or Recommended Practice	Regulation or Document Reference	implementation of SARP's	notified to ICAO	reason for the difference
Chapter 2 Reference 2.2.3 Standard	2.2.3 The scheduled performance of the helicopter shall be consistent with compliance with 1.2.1 and with the operation in logical combinations of those of the helicopter's systems and equipment, the operation of which may affect performance.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.4 Standard	At the maximum masses scheduled (see 2.2.7) for take-off and for landing as functions of the take-off and landing site pressure-altitude and temperature in still air conditions, and, for water operations, in specified conditions of smooth water, the helicopter shall be capable of accomplishing the minimum performances specified in 2.2.5 and 2.2.6, respectively, not considering obstacles or final approach and take-off area length.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.5 Standard	<ul> <li>2.2.5 Take-off</li> <li>a) The performance at all stages of take-off and climb shall be sufficient to ensure that under conditions of operation departing slightly from the idealized conditions for which data is scheduled (see 2.2.7), the departure from the scheduled values is not disproportionate.</li> <li>b) For Category A helicopters, in the event of critical engine failure at or after the take-off decision point, the helicopter shall be capable of continuing safe flight, the remaining engine(s) being operated within the approved limitations.</li> </ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.2.6 Standard	<ul> <li>a) It shall be possible to make a safe landing on a prepared landing surface after complete power failure occurring during normal cruise.</li> <li>b) For Category A helicopters, starting from the landing configuration in the event of critical engine failure at or before the landing decision point, the helicopter shall be capable of continuing safe flight, the remaining engine(s) being operated within the approved limitations.</li> </ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2	2.2.7 Scheduling of performance	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is
Reference 2.2.7	Performance data shall be determined and scheduled in the flight manual as follows for the ranges of mass, altitude,	7 11			by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	temperature and other operational variables for which the helicopter is to be certificated, and additionally for amphibians, water surface conditions and strength of current shall be included.				· · · · · · · · · · · · · · · · · · ·
	a) Hover performance. The hover performance shall be determined for both in-ground effect and out-of-ground effect with all engines operating.				
	b) Climb. The steady rate of climb with the engine(s) operating at or within approved limits shall be established.				
	c) Height-velocity envelope. If there are any combinations of height and forward velocity (including hover) under which a safe landing cannot be made after failure of the critical engine and with the remaining engine(s) (if applicable) operating within approved limits, a height-velocity envelope shall be established.				
	d) Take-off distance — all engines operating. Where required by the operating rules, the take-off distance — all engines operating shall be the horizontal distance required from the start of the take-off to the point where a selected speed up to the best rate of climb speed (Vy) and selected height above the take-off surface are achieved, all engines operating at approved take-off power required.				
	In addition, for Category A helicopters:				
	e) Minimum performance. The minimum climb				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	performance shall be established for both take-off and landing.				
	f) Take-off decision point. The take-off decision point shall be the point in the take-off phase used in determining take-off performance and from which either a rejected take-off may be made or a take-off safely continued, with the critical engine inoperative.				
	g) Take-off distance required. The take-off distance required shall be the horizontal distance required from the start of the take-off to the point at which the take-off safety speed (VTOSS), a selected height above the take-off surface and a positive climb gradient are achieved, following failure of the critical engine at take-off decision point, the remaining engine(s) operating within approved operating limits. If procedures involve rearward flight, the back-up distance shall be included.				
	h) Rejected take-off distance required. The rejected take-off distance required shall be the horizontal distance required from the start of the take-off to the point where the helicopter comes to a complete stop following engine failure and rejection of the take-off at the take-off decision point.				
	i) Take-off path — climb gradients. The take-off path — climb gradient shall be the steady gradient(s) of climb for the appropriate configuration(s) with the critical engine inoperative from the end of the take-off distance required to a defined point above the take-off surface.				
	j) Engine inoperative climb. The engine inoperative climb shall be the steady rate of climb/descent with the critical engine inoperative and the operating				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	engine(s) not exceeding the power for which they are certificated.  k) Landing decision point. The landing decision point shall be the latest point in the approach phase from which either a landing may be made or a rejected landing (go-around) safely initiated, with the critical engine inoperative.  l) Landing distance required. The landing distance required shall be the horizontal distance required to land and come to a complete stop from a point on the approach flight path at a selected height above the landing surface with the critical engine inoperative.				
Chapter 2 Reference 2.3.1 Standard	2.3 Flying qualities  2.3.1 The helicopter shall comply with the Standards of 2.3 at all altitudes up to the maximum anticipated altitude relevant to the particular requirement in all temperature conditions relevant to the altitude in question and for which the helicopter is approved.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.3.2.1 Standard	2.3.2 Controllability  2.3.2.1 The helicopter shall be controllable and manoeuvrable under all anticipated operating conditions, and it shall be possible to make smooth transitions from one flight condition to another (e.g. turns, sideslips, changes of engine power, changes of helicopter configurations) without requiring exceptional skill, alertness or strength on the part of the pilot even in the event of failure of any engine. A technique for safely controlling the helicopter shall be established for all stages of flight and helicopter configurations for which performance is scheduled.  Note.— This Standard is intended, among other things, to relate to operation in conditions of no appreciable atmospheric turbulence and also to ensure that there is no undue deterioration of the flying qualities in turbulent air.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.2.2 Standard	2.3.2.2 Controllability on the ground (or water). The helicopter shall be controllable on the ground (or on the water) during taxiing, take-off and landing under the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.2.3 Standard	2.3.2.3 Controllability during take-off. The helicopter shall be controllable in the event of sudden failure of the critical engine at any point in the take-off, when the helicopter is handled in the manner associated with the scheduling of the take-off data.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.3.3 Standard	2.3.3 Trim  The helicopter shall have such trim and handling capabilities as to ensure that the demands made on the pilot's attention and ability to maintain a desired flight condition are not excessive when account is taken of the stage of flight at which these demands occur and their duration. In the event of a malfunction of the systems associated with the flight controls, there shall not be any significant deterioration of the handling characteristics.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2	2.4 Stability and control	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is
Reference	,	Criter art 21, rippondix C.	Two Difference		by incorporation by
2.4.1	2.4.1 Stability				reference in CAR Part 21 of appropriate FARs.
Standard	The helicopter shall have such stability in relation to its other flight characteristics, performance, structural strength and most probable operating conditions (e.g. helicopter configurations and speed ranges) as to ensure that demands made on the pilot's powers of concentration are not excessive when the stage of the flight at which these demands occur and their duration are taken into account. The stability of the helicopter shall not, however, be such that excessive demands are made on the pilot's strength or that the safety of the helicopter is prejudiced by lack of manoeuvrability in emergency conditions.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 2 Reference 2.4.2.1 Standard	2.4.2 Autorotation  2.4.2.1 Rotor speed control. The autorotation characteristics of the helicopter shall be such as to enable the pilot to control the rotor speed to within prescribed limits and to maintain full control of the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 2 Reference 2.4.2.2 Standard	2.4.2.2 Behaviour following a power loss. The behaviour of the helicopter following a power loss shall not be so extreme as to make difficult a prompt recovery of rotor speed without exceeding the airspeed or strength limitations of the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 2 Reference 2.4.2.3 Standard	2.4.2.3 Autorotation airspeeds. For Category A helicopters, airspeeds for autorotative landings shall be established. For other helicopters, the autorotation airspeeds recommended for maximum range and minimum rate of descent shall be established.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 2 Reference 2.4.3 Standard	2.4.3 Vibration  There shall be no vibration or buffeting severe enough to interfere with the control of the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2	2.4.4 Ground resonance	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is
Reference 2.4.4	The helicopter shall have no dangerous tendency to oscillate on the ground with the rotor turning.				by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard					
Chapter 3	CHAPTER 3. STRUCTURE	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is
Reference		21, 11pp v.iu.i. e.			by incorporation by
3.1.1					reference in CAR Part 21 of appropriate FARs.
Standard	3.1.1 For helicopters for which application for certification was submitted before 24 February 2013, the helicopter structure shall be designed, manufactured and provided with instructions for its maintenance with the objective of avoiding catastrophic failure throughout its operational life.				арргорпаце гАКS.
Chapter 3 Reference 3.1.2 Standard	3.1.2 For helicopters for which application for certification was submitted on or after 24 February 2013, the helicopter structure shall be designed, manufactured and provided with instructions for its maintenance and repair with the objective of avoiding hazardous and catastrophic failure throughout its operational life.  Note.— Structure includes the airframe, undercarriage, control system, blades and rotorhead, rotor pylon and auxiliary lifting surfaces.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.2 Standard	Unless otherwise stated, all structural Standards shall be complied with when the mass is varied over the applicable range and is distributed in the most adverse manner, within the operating limitations on the basis of which certification is sought.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.3 Standard	3.3 Limit loads  Except as might be otherwise qualified, the external loads and the corresponding inertia loads, or resisting loads obtained for the various loading conditions prescribed in 3.7, 3.8 and 3.9 shall be considered as limit loads.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.4 Standard	3.4 Strength and deformation  In the various loading conditions prescribed in 3.7, 3.8 and 3.9, no part of the helicopter structure shall sustain detrimental deformation at any load up to and including the limit load, and the helicopter structure shall be capable of supporting the ultimate load.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.5.1 Standard	3.5. Airspeeds  3.5.1 Design airspeeds  Design airspeeds shall be established for which the helicopter structure is designed to withstand the corresponding manoeuvring and gust loads in accordance with 3.7.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.5.2 Standard	3.5.2 Limiting airspeeds  Limiting airspeeds, based on the corresponding design airspeeds with safety margins, where appropriate, in accordance with 1.2.1, shall be included in the flight manual as part of the operating limitations (see 7.2.3). When airspeed limitations are a function of mass, mass distribution, altitude, rotor speed, power or other factors, airspeed limitations based on the critical combination of these factors shall be established.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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3.6 Main rotor(s) rotational speed limits	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is	
A range of main rotor(s) speeds shall be established that:	, <b>, ,</b>			by incorporation by reference in CAR Part 21 of	
<ul> <li>a) with power on, provides adequate margin to accommodate the variations in rotor speed occurring in any appropriate manoeuvre, and is consistent with the kind of governor or synchronizer used; and</li> <li>b) with power off, allows each appropriate autorotative manoeuvre to be performed throughout the ranges of airspeed and mass for which certification is requested.</li> </ul>				appropriate FARs.	
3.7 Loads	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is	
3.7.1 The loading conditions of 3.7, 3.8 and 3.9 shall consider the range of mass and mass distributions prescribed in 3.2, the main rotor rpm ranges established in 3.6, and				by incorporation by reference in CAR Part 21 of appropriate FARs.	
airspeeds established in accordance with 3.5.1. Asymmetrical as well as symmetrical loading shall be taken into account. The air, inertia and other loads resulting from the specific loading conditions shall be distributed so as to approximate actual conditions closely or to represent them conservatively in consideration of all anticipated operating conditions.					
	Alrworthiness of Alrcraft  Standard or Recommended Practice  3.6 Main rotor(s) rotational speed limits  A range of main rotor(s) speeds shall be established that:  a) with power on, provides adequate margin to accommodate the variations in rotor speed occurring in any appropriate manoeuvre, and is consistent with the kind of governor or synchronizer used; and  b) with power off, allows each appropriate autorotative manoeuvre to be performed throughout the ranges of airspeed and mass for which certification is requested.  3.7 Loads  3.7.1 The loading conditions of 3.7, 3.8 and 3.9 shall consider the range of mass and mass distributions prescribed in 3.2, the main rotor rpm ranges established in 3.6, and airspeeds established in accordance with 3.5.1. Asymmetrical as well as symmetrical loading shall be taken into account. The air, inertia and other loads resulting from the specific loading conditions shall be distributed so as to approximate actual conditions closely or to represent them conservatively in	Standard or Recommended Practice  3.6 Main rotor(s) rotational speed limits  A range of main rotor(s) speeds shall be established that:  a) with power on, provides adequate margin to accommodate the variations in rotor speed occurring in any appropriate manoeuvre, and is consistent with the kind of governor or synchronizer used; and  b) with power off, allows each appropriate autorotative manoeuvre to be performed throughout the ranges of airspeed and mass for which certification is requested.  3.7 Loads  CAR Part 21, Appendix C.  1.1 The loading conditions of 3.7, 3.8 and 3.9 shall consider the range of mass and mass distributions prescribed in 3.2, the main rotor rpm ranges established in 3.6, and airspeeds established in accordance with 3.5.1. Asymmetrical as well as symmetrical loading shall be taken into account. The air, inertia and other loads resulting from the specific loading conditions shall be distributed so as to approximate actual conditions closely or to represent them conservatively in	Standard or Recommended Practice  3.6 Main rotor(s) rotational speed limits  A range of main rotor(s) speeds shall be established that:  a) with power on, provides adequate margin to accommodate the variations in rotor speed occurring in any appropriate manoeuvre, and is consistent with the kind of governor or synchronizer used; and  b) with power off, allows each appropriate autorotative manoeuvre to be performed throughout the ranges of airspeed and mass for which certification is requested.  3.7 Loads  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  No Difference  CAR Part 21, Appendix C.  No Difference  3.7.1 The loading conditions of 3.7, 3.8 and 3.9 shall consider the range of mass and mass distributions prescribed in 3.2, the main rotor rpm ranges established in 3.6, and airspeeds established in accordance with 3.5.1. Asymmetrical as well as symmetrical loading shall be taken into account. The air, inertia and other loads resulting from the specific loading conditions shall be distributed so as to approximate actual conditions closely or to represent them conservatively in	State Legislation, Regulation or Document Reference  3.6 Main rotor(s) rotational speed limits  A range of main rotor(s) speeds shall be established that:  a) with power on, provides adequate margin to accommodate the variations in rotor speed occurring in any appropriate manoeuvre, and is consistent with the kind of governor or synchronizer used; and  b) with power off, allows each appropriate autorotative manoeuvre to be performed throughout the ranges of airspeed and mass for which certification is requested.  3.7.1 The loading conditions of 3.7, 3.8 and 3.9 shall consider the range of mass and mass distributions prescribed in 3.2, the main rotor rpm ranges established in 3.6, and airspeeds established in accordance with 3.5.1. Asymmetrical as well as symmetrical are actual conditions shall be distributed so as to approximate actual conditions closely or to represent them conservatively in	

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Chapter 3 Reference 3.7.2 Standard	3.7.2 Manoeuvring loads  Manoeuvring loads shall be computed on the basis of manoeuvring load factors appropriate to the manoeuvres permitted by the operating limitations. They shall not be less than values that experience indicates will be adequate for the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.7.3 Standard	3.7.3 Gust loads  Gust loads shall be computed for vertical and horizontal gust velocities that statistics or other evidence indicates will be adequate for the anticipated operating conditions.	7 11	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.8.1 Standard	3.8.1 The structure shall be able to withstand all the loads due to the reactions of the ground or water surface, as applicable, that arise during start-up, ground and water taxiing, lift-off, touchdown and rotor braking.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 3 Reference 3.8.2 Standard	3.8.2 Landing conditions  The landing conditions at the maximum certificated take-off mass and at the maximum certificated landing mass shall include such symmetrical and asymmetrical attitudes of the helicopter at ground or water contact, such velocities of descent, and such other factors affecting the loads imposed upon the structure as might be present in the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.9 Standard	3.9 Miscellaneous loads  In addition to or in conjunction with the manoeuvering and gust loads and with the ground and water loads, consideration shall be given to all other loads (flight control loads, pilot forces, engine torque, loads due to changes of configuration, external loads, etc.) that are likely to occur in the anticipated operating conditions.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.10 Standard	3.10 Fatigue strength  The strength and fabrication technique of the helicopter structure shall be such as to avoid catastrophic fatigue failure under repeated loads and vibratory loads in the anticipated operating conditions. Environmental degradation, accidental damage and other likely failures shall be considered.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.11 Standard	3.11 Special factors  Design features (e.g. castings, bearings or fittings), the strength of which are subject to variability in manufacturing processes, deterioration in service or any other cause, shall be accounted for by a suitable factor.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.1	CHAPTER 4. DESIGN AND CONSTRUCTION	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	4.1.1 Details of design and construction shall be such as to give reasonable assurance that all helicopter parts will function effectively and reliably in the anticipated operating conditions. They shall be based upon practices that experience has proven to be satisfactory or that are substantiated by special tests or by other appropriate investigations or both. They shall also consider human factors principles.  Note.— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc 9683).				

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Chapter 4 Reference 4.1.2 Standard	4.1.2 Substantiation of moving parts  The functioning of all moving parts essential to the safe operation of the helicopter shall be demonstrated in order to ensure that they will function correctly under all operating conditions for such parts.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.3 Standard	4.1.3 Materials  All materials used in parts of the helicopter essential for its safe operation shall conform to approved specifications. The approved specifications shall be such that materials accepted as complying with the specifications will have the essential properties assumed in the design.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.4 Standard	4.1.4 Manufacturing methods  The methods of manufacturing and assembly shall be such as to produce consistently sound structure which shall be reliable with respect to maintenance of strength in service.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.5 Standard	4.1.5 Protection  The structure shall be protected against deterioration or loss of strength in service due to weathering, corrosion, abrasion or other causes, which could pass unnoticed, taking into account the maintenance the helicopter will receive.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 4 Reference 4.1.6 Standard	4.1.6 Inspection provisions  Adequate provision shall be made to permit any necessary examination, replacement or reconditioning of parts of the helicopter that require such attention, either periodically or after unusually severe operations.	,	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.7 Standard	4.1.7 Critical parts  All critical parts used in the helicopter shall be identified and procedures shall be established to ensure that the required level of integrity for critical parts is controlled during design, manufacture and throughout the service life of those parts.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 4 Reference 4.2 Standard	Special consideration shall be given to design features that affect the ability of the flight crew to maintain controlled flight. This shall include at least the following:  a) Controls and control systems. The design of the controls and control systems shall be such as to minimize the possibility of jamming, inadvertent operation and unintentional engagement of control locking devices.  1) Each control and control system shall operate with the ease, smoothness and precision appropriate to its function.  2) Each element of each flight control system shall be designed, or distinctively and permanently marked, to minimize the probability of any incorrect assembly that could result in the malfunction of the system.  b) Crew environment. The design of the flight crew compartment shall allow operation of the controls by the crew without unreasonable concentration or fatigue.  c) Crew vision. The arrangement of the flight crew compartment shall be such as to afford a sufficiently extensive, clear and undistorted field of vision for the safe operation of the helicopter under all foreseeable operating conditions for which certification is requested.  d) Provision for emergencies. Means shall be provided which shall either automatically prevent, or enable the flight crew to deal with, emergencies resulting	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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	from foreseeable failures of equipment and systems which would endanger the helicopter.  e) Fire precautions. The helicopter shall have adequate fire protection.  f) Incapacitation of crew. Design precautions shall be taken to protect against the presence of toxic gases which under normal operating conditions could incapacitate the flight crew.				
Chapter 4 Reference 4.3 Standard	4.3 Flutter  Each aerodynamic surface of the helicopter shall be free from flutter under each appropriate speed and power condition.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.4.1 Standard	4.4.1 Seating and restraints  Adequate seating and restraints shall be provided for the occupants, taking account of the likely flight and emergency landing loads to be encountered. Attention shall be paid to minimizing injury to occupants due to contact with surrounding structures during the operation of the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 4 Reference 4.4.2 Standard	4.4.2 Cabin environment  Ventilation systems shall be designed to provide the cabin with an adequate environment during the anticipated flight and ground operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.5.1 Standard	4.5 Electrical bonding and protection against lightning and static electricity  4.5.1 Electrical bonding and protection against lightning and static electricity shall be such as to:  a) protect the helicopter, its systems, its occupants and those who come in contact with the helicopter on the ground or water from the dangerous effects of lightning discharge and electrical shock; and  b) prevent dangerous accumulation of electrostatic charge.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.5.2 Standard	4.5.2 The helicopter shall also be protected against catastrophic effects of lightning. Due account shall be taken of the material used in the construction of the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.6.1 Standard	4.6 Emergency landing provisions  4.6.1 Provisions shall be made in the design of the helicopter to protect the occupants from fire and effects of deceleration in the event of an emergency landing.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 4 Reference 4.6.2 Standard	4.6.2 For helicopters for which application for certification was submitted before 24 February 2013, facilities shall be provided for rapid evacuation of the helicopter in conditions likely to occur following an emergency landing, and such facilities shall be related to the passenger and crew capacity of the helicopter. On helicopters certificated for ditching conditions, provisions shall also be made in the design to give reasonable assurance that safe evacuation from the helicopter of passengers and crew can be executed in case of ditching.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.6.3 Standard	4.6.3 For helicopters for which application for certification was submitted on or after 24 February 2013, facilities shall be provided for rapid evacuation of the helicopter in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the helicopter and shall be shown to be suitable for their intended purpose. On helicopters certificated for ditching conditions, provisions shall also be made in the design to give reasonable assurance that safe evacuation from the helicopter of passengers and crew can be executed in case of ditching.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.7 Standard	Adequate provisions shall be made in the design to minimize the risk that normal ground handling operations (e.g. towing, jacking) may cause damage, which could pass unnoticed, to the parts of the helicopter essential for its safe operation. The protection that any limitations and instructions for such operations might provide may be taken into account.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.1 Standard	CHAPTER 5. ROTORS AND POWERPLANT  5.1 Engines  The Standards of Part VI of this Annex shall apply to each engine that is used on the helicopter as a primary propulsion unit(s).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.2.1 Standard	5.2 Rotors and powerplant installation  5.2.1 General  The powerplant installation and rotors shall comply with the Standards of Chapter 4 and with the Standards of 5.2.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 5	5.2.2 Design, construction and functioning	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is			
Reference		Criterate 21, ripponaix C.	The Billerence		by incorporation by			
5.2.2	<ul> <li>a) The rotors and rotor drive systems assembly complete with accessories shall be designed and constructed so as to function reliably within their</li> </ul>				reference in CAR Part 21 of appropriate FARs.			
Standard	operating limitations under the anticipated operating conditions when properly fitted to the engine and installed in the helicopter in accordance with this chapter.							
	b) For helicopters of maximum certificated take-off mass greater than 3 175 kg or helicopters which are certificated to Category A Standard, an assessment shall be conducted for the rotors and rotor drive systems to ensure that they function safely throughout the full range of operating conditions. Where this assessment identifies a failure which could prevent continued safe flight or landing of the helicopter, means shall be prescribed to minimize the likelihood of that failure.							

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference			
Chapter 5 Reference 5.2.3 Standard	The power ratings and all operating conditions and limitations which are intended to govern the operation of the rotors and rotor drive systems shall be declared.  a) Maximum and minimum rotor rotational speed limitations. Maximum and minimum speeds for the rotors in both power-on and power-off conditions shall be established. Any operating conditions (e.g. airspeed) that affect such maxima or minima shall be declared.  b) Rotor underspeed warnings for single engine helicopters, and for multi-engine helicopters not having an approved device for automatically increasing power when an engine fails. When the helicopter approaches a rotor rotational speed limit, with or without engines inoperative, clear and distinctive warnings shall be apparent to the pilot. The warnings or initial characteristics of the condition shall be such as to enable the pilot to arrest the development of the condition after the warning begins and to recover the rotor rotational speed to within prescribed normal limits and to maintain full control of the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.			

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Chapter 5 Reference 5.2.4 Standard	Rotors and rotor drive systems shall complete satisfactorily such tests as are necessary to ensure that they will operate satisfactorily and reliably within the declared ratings, conditions and limitations. The tests shall include at least the following:  a) Operation. Tests shall be conducted to ensure that strength and vibration characteristics are satisfactory and to demonstrate proper and reliable functioning of pitch changing and control mechanisms and free wheel mechanisms. Overspeed characteristics shall be demonstrated to be satisfactory for helicopters of maximum certificated take-off mass greater than 3 175 kg; and  b) Endurance. Tests of sufficient duration shall be conducted at such powers, engine and rotor speeds, and other operating conditions as are necessary to demonstrate reliability and durability of the rotors and rotor drive systems.		No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.2.5 Standard	5.2.5 Compliance with engine, rotor and rotor drive system limitations  The powerplant installation shall be so designed that the engines, rotors and rotor drive systems are capable of functioning reliably in the anticipated operating conditions. In conditions established in the flight manual, the helicopter shall be capable of being operated without exceeding the limitations established for the engines, rotors and rotor drive systems in accordance with this chapter and Part VI.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 5 Reference 5.2.6 Standard	5.2.6 Control of engine rotation  For helicopters of a maximum certificated take-off mass greater than 3 175 kg and for helicopters which are certificated to Category A Standard, where continued rotation of a failed engine would increase the hazard of fire or of a serious structural failure, means shall be provided for the crew to stop the rotation of the failed engine in flight or to reduce it to a safe level.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.2.7 Standard	5.2.7 Engine restarting  For helicopters of a maximum certificated take-off mass greater than 3 175 kg and for helicopters which are certificated to Category A Standard, means shall be provided for restarting an engine in flight at altitudes up to a declared maximum altitude.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.2.8.1 Standard	5.2.8 Arrangement and functioning  5.2.8.1 Independence of engines. For Category A helicopters for which application for certification was submitted before 24 February 2013, the powerplant shall be arranged and installed so that each engine together with its associated systems is capable of being controlled and operated independently from the others and so that there is at least one arrangement of the powerplant and systems in which any failure, unless the probability of its occurrence is extremely remote, cannot result in a loss of more power than that resulting from complete failure of the critical engine.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 5 Reference 5.2.8.2 Standard	<ul> <li>5.2.8.2 Independence of engines and associated systems. For Category A helicopters for which application for certification was submitted on or after 24 February 2013, the engines together with their associated systems shall be arranged and isolated from each other to allow operation, in at least one configuration, so that the failure or malfunction of any engine, or the failure of any system that can affect any engine, will not:</li> <li>a) prevent the continued safe operation of the remaining engine(s); or</li> <li>b) require immediate action, other than normal pilot action with primary flight controls, by any crew member to maintain safe operation.</li> </ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.2.8.3 Standard	5.2.8.3 Rotors and rotor drive systems vibration. The vibration stresses for the rotors and rotor drive systems shall be determined and shall not exceed values that have been found safe for operation within the operating limitations established for the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.2.8.4 Standard	5.2.8.4 <i>Cooling</i> . The cooling system shall be capable of maintaining the temperature of powerplant components and fluids within the established limits (see 5.2.5) at all ambient temperatures approved for operation of the helicopter. The maximum and minimum ambient air temperatures for which the powerplant has been established as being suitable shall be scheduled in the flight manual.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 5 Reference 5.2.8.5 Standard	5.2.8.5 Associated systems. The fuel, oil, air induction and other systems associated with the powerplant and the rotor(s), shall be capable of supplying the appropriate unit in accordance with its established requirements, under all conditions affecting the functioning of the systems (e.g. engine power setting, helicopter attitudes and accelerations, atmospheric conditions, fluid temperatures) within the anticipated operating conditions.	7	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 5 Reference 5.2.8.6	5.2.8.6 <i>Fire protection.</i> For regions of the powerplant where the potential fire hazards are particularly serious because of the proximity of ignition sources to combustible materials, the following shall apply in addition to the general Standard of 4.2 e).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	<ul> <li>a) Isolation. Such regions shall be isolated by fire resistant material from other regions of the helicopter where the presence of fire would jeopardize continued flight and landing (helicopters of a maximum certificated take-off mass greater than 3 175 kg or Category A) or would jeopardize safe landing (other helicopters), taking into account the probable points of origin and paths of propagation of fire.</li> <li>b) Flammable fluids. Flammable fluid system components located in such regions shall be fire resistant. Drainage of each region shall be provided to minimize hazards resulting from the failure of any component containing flammable fluids. Means shall be provided for the crew to shut off the flow of flammable fluids into such regions if a fire occurs. Where sources of flammable fluid exist in such regions, the whole of the related system within the region, including supporting structure, shall be fireproof or shielded from the effects of fires.</li> <li>c) Fire detection. For turbine engine installations, a sufficient number of fire detectors shall be provided and located to ensure rapid detection of any fire that might occur in such regions, unless the fire can be readily observed in flight by the pilot in the cockpit.</li> <li>d) Fire extinguishment. For turbine engine helicopters of a maximum certificated take-off mass greater than 3 175 kg, such regions shall be provided with a fire extinguisher system capable of extinguishing any fire</li> </ul>				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	likely to occur therein, unless the degree of isolation, quantity of combustibles, fire resistance of the structure and other factors are such that any fire likely to occur in the region would not jeopardize the safety of the helicopter.				
Chapter 6 Reference 6.1.1	CHAPTER 6. SYSTEMS AND EQUIPMENT	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	6.1.1 The helicopter shall be provided with approved instruments, equipment and systems necessary for the safe operation of the helicopter in the anticipated operating conditions. These shall include the instruments and equipment necessary to enable the crew to operate the helicopter within its operating limitations. Instruments and equipment design shall consider human factors principles.  Note 1.— Instruments and equipment additional to the minimum necessary for the issuance of a Certificate of Airworthiness are prescribed in Annex 6, Part III, for particular circumstances or on particular kinds of routes.  Note 2.— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc 9683).				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.1.2 Standard	6.1.2 The design of the instruments, equipment and systems required by 6.1.1 and their installation shall be such that:  a) for a Category A helicopter, an inverse relationship exists between the probability of a failure condition and the severity of its effect on the helicopter and its occupants, as determined by a system safety assessment process;  b) they perform their intended function under all anticipated operating conditions; and  c) electromagnetic interference between them is minimized.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.1.3 Standard	6.1.3 Means shall be provided to warn the crew of unsafe system operating conditions and to enable them to take corrective action.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.1.4 Standard	6.1.4 Electrical power supply  The design of the electrical power supply system shall be such as to enable it to supply power loads during normal operations and shall also be such that no single failure or malfunction could impair the ability of the system to supply essential loads for safe operation.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.1.5 Standard	6.1.5 Development assurance of complex electronic hardware and system software  For helicopters for which application for certification was submitted on or after 24 February 2013, complex electronic hardware and system software shall be developed, verified and validated such as to ensure that the systems in which they are used perform their intended functions at a level of safety that complies with the requirements of this part, notably those of 6.1.2 a) and 6.1.2 b).  Note.— Some States accept the use of national or international industry standards for the development assurance (development, verification and validation) of complex electronic hardware and systems software.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.2 Standard	6.2 Installation  Instrument and equipment installations shall comply with the Standards of Chapter 4.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.3 Standard	6.3 Safety and survival equipment  Prescribed safety and survival equipment that the crew or passengers are expected to use or operate at the time of an emergency shall be reliable, readily accessible and easily identified, and its method of operation shall be plainly marked.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.4.1 Standard	6.4. Navigation lights and anti-collision lights  6.4.1 The lights required by Annex 2 — Rules of the Air to be displayed by helicopters in flight or operating on the movement area of an aerodrome or a heliport shall have intensities, colours, fields of coverage and other characteristics such that they furnish the pilot of another aircraft or personnel on the ground with as much time as possible for interpretation and for subsequent manoeuvre necessary to avoid a collision. In the design of such lights, due account shall be taken of the conditions under which they may reasonably be expected to perform these functions.  Note.— It is likely that lights will be viewed against a variety of backgrounds, such as typical city lighting, clear starry sky, moonlit water and daytime conditions of low background luminance. Furthermore, collision risk situations are most likely to arise in terminal control areas in which aircraft are manoeuvring in the intermediate and lower flight levels at closing speeds that are unlikely to exceed 900 km/h (500 kt).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.4.2 Standard	6.4.2 Lights shall be installed in helicopters so as to minimize the possibility that they will adversely affect the satisfactory performance of the flight crews' duties.  Note.— In order to avoid the effects mentioned in 6.4.2, it will be necessary in some cases to provide means whereby the pilot can adjust the intensity of the flashing lights.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.5 Standard	6.5 Electromagnetic interference protection  Aircraft electronic systems, particularly flight-critical and flight-essential systems, shall be protected as appropriate against electromagnetic interference from both internal and external sources.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.6 Standard	6.6 Ice protection  If certification for flight in icing conditions is required, the helicopter shall be shown to be able to operate safely in all icing conditions likely to be encountered in all anticipated operating environments.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.1	CHAPTER 7. OPERATING LIMITATIONS AND INFORMATION	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	7.1 General  The operating limitations within which compliance with the Standards of this Annex is determined, together with any other information necessary to the safe operation of the helicopter, shall be made available by means of a flight manual, markings and placards, and such other means as may effectively accomplish the purpose.				
Chapter 7 Reference 7.2.1 Standard	7.2.1 Limitations which might be exceeded in flight and which are defined quantitatively shall be expressed in suitable units. These limitations shall be corrected if necessary for errors in measurements so that the flight crew can, by reference to the instruments available to them, readily determine when the limitations are reached.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.2 Standard	7.2.2 Loading limitations  The loading limitations shall include all limiting masses, centre of gravity positions, mass distributions and floor loadings (see 1.2.2).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.2.3 Standard	7.2.3 Airspeed limitations  The airspeed limitations shall include all speeds (see 3.5.2) that are limiting from the standpoint of structural integrity or flying qualities of the helicopter, or from other considerations. These speeds shall be identified with respect to the appropriate helicopter configurations and other pertinent factors.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.4 Standard	7.2.4 Powerplant limitations  The powerplant limitations shall include all those established for the various powerplant components as installed in the helicopter (see 5.2.5 and 5.2.8.4).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.5 Standard	7.2.5 Rotor limitations  Limitations on rotor speeds shall include maximum and minimum rotor speeds for power-off (autorotation) and power-on conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.6 Standard	7.2.6 Limitations on equipment and systems  The limitations on equipment and systems shall include all those established for the various equipment and systems as installed in the helicopter.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.2.7 Standard	7.2.7 Miscellaneous limitations  Miscellaneous limitations shall include any necessary limitations with respect to conditions found to be prejudicial to the safety of the helicopter (see 1.2.1).	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.8 Standard	7.2.8 Flight crew limitations  The flight crew limitations shall include the minimum number of flight crew personnel necessary to operate the helicopter, having regard, among other things, to the accessibility to the appropriate crew members of all necessary controls and instruments and to the execution of the established emergency procedures.  Note.— The circumstances in which the flight crew shall include members in addition to the minimum flight crew are defined in Annex 6, Part III.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.3.1 Standard	7.3.1 Types of eligible operations  The particular types of operations for which the helicopter has been shown to be eligible by virtue of compliance with the appropriate airworthiness requirements shall be listed.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.3.2 Standard	7.3.2 Loading information  The loading information shall include the empty mass of the helicopter, together with a definition of the condition of the helicopter at the time of weighing, the corresponding centre of gravity position, and the reference points and datum lines to which the centre of gravity limits are related.  Note.— Usually the empty mass excludes the mass of the crew and payload, and the usable fuel supply; it includes the mass of all fixed ballast, unusable fuel supply and total quantity of oil, engine coolant and hydraulic fluid.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.3.3 Standard	7.3.3 Operating procedures  A description shall be given of normal and emergency operating procedures which are peculiar to the particular helicopter and necessary for its safe operation. These shall include procedures to be followed in the event of failure of one or more engines.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.3.4 Standard	7.3.4 Handling information  Sufficient information shall be given on any significant or unusual features of the helicopter characteristics.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 7 Reference 7.4 Standard	7.4 Performance information  The performance of the helicopter shall be scheduled in accordance with 2.2. There shall be included information regarding the various helicopter configurations and powers involved and the relevant speeds, together with information which will assist the flight crew in attaining the performance as scheduled.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 7 Reference 7.5 Standard	7.5 Flight manual  A flight manual shall be made available. It shall identify clearly the specific helicopter or series of helicopters to which it is related. The flight manual shall include at least the limitations, information and procedures specified in 7.2, 7.3, 7.4 and 7.6.1.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 7 Reference 7.6.1 Standard	7.6 Markings and placards  7.6.1 Markings and placards on instruments, equipment, controls, etc., shall include such limitations or information as necessary for the direct attention of the flight crew during flight.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Annex 8, Amendment 106

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.6.2 Standard	7.6.2 Markings and placards or instructions shall be provided to give any information that is essential to the ground crew in order to preclude the possibility of mistakes in ground servicing (towing, refuelling, etc.) that could pass unnoticed and that could jeopardize the safety of the helicopter in subsequent flights.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.7.1 Standard	7.7 Continuing airworthiness — maintenance information  7.7.1 General  Information for use in developing procedures for maintaining the helicopter in an airworthy condition shall be made available. The information shall include that described in 7.7.2, 7.7.3 and 7.7.4.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.7.2 Standard	7.7.2 Maintenance information  Maintenance information shall include a description of the helicopter and recommended methods for the accomplishment of maintenance tasks. Such information shall include guidance on defect diagnosis.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.7.3 Standard	7.7.3 Maintenance programme information  Maintenance programme information shall include the maintenance tasks and the recommended intervals at which these tasks are to be performed.  Note.— The development of initial maintenance programme information at the time of helicopter type certification is sometimes referred to as the Maintenance Review Board (MRB) process or the process of developing instructions for continued airworthiness.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.7.4 Standard	7.7.4 Mandatory maintenance requirements resulting from the type design approval  Mandatory maintenance requirements that have been specified by the State of Design as part of the approval of the type design shall be identified as such and included in the maintenance information of 7.7.3.  Note.— Mandatory requirements identified as part of the type design approval are often referred to as Certification Maintenance Requirements (CMR) and/or airworthiness limitations.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8 Reference 8.1 Standard	CHAPTER 8. CRASHWORTHINESS AND CABIN SAFETY  8.1 General	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
	Crashworthiness shall be taken into account in the design of helicopters to improve the probability of occupant survival.				
Chapter 8 Reference 8.2 Standard	8.2 Design emergency landing loads  Emergency landing (crash) loads shall be determined so that the interiors, furnishings, support structure and safety equipment can be designed to reasonably protect occupants under emergency landing conditions. Items to be considered shall include:  a) dynamic effects;  b) restraint criteria for items that could cause a hazard;  c) deformation of the fuselage in the areas of emergency exits;  d) fuel cell integrity and position; and  e) integrity of electrical systems to avoid sources of ignition in the area of fuel components.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 8	8.3 Cabin fire protection	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is
Reference					by incorporation by
8.3	The cabin shall be so designed as to provide fire protection to the occupants in the event of airborne systems failures or a				reference in CAR Part 21 of appropriate FARs.
Standard	crash situation. Items to be considered shall include:				
Standard	a) flammability of cabin interior materials;				
	b) fire resistance and, for helicopters of a maximum certificated take-off mass greater than 3 175 kg, the generation of smoke;				
	c) provision of safety features to allow for safe evacuation; and				
	d) fire suppression equipment.				

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Chapter 8	8.4 Evacuation	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is
Reference 8.4	The helicopter shall be equipped with sufficient emergency exits to allow for cabin evacuation within an appropriate time	7 11			by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	period. Items to be considered, appropriate to the size and category of the helicopter, shall include:				арргориаце гажк.
	a) number of seats and seating configuration;				
	b) number, location and size of exits;				
	c) marking of exits and provision of instructions for use;				
	d) likely blockages of exits;				
	e) operation of exits; and				
	f) positioning and weight of evacuation equipment at exits, e.g. slides and rafts.				

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Chapter 8	8.5 Lighting and marking	CAR Part 21.	No Difference		Compliance with Part IV is
Reference	2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5.	Criter art 21.	1 to Difference		by incorporation by
8.5	For helicopters with 10 or more passenger seats, emergency lighting shall be provided and shall have the following				reference in CAR Part 21 of appropriate FARs.
	characteristics:				
Standard	<ul> <li>a) independence from main electrical supply;</li> <li>b) for helicopters for which application for certification was submitted on or after 24 February 2013,</li> </ul>				
	automatic activation upon loss of normal power/impact;				
	c) visual indication of emergency exits; and				
	d) illumination both inside and outside the helicopter during evacuation.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.1 Standard	CHAPTER 9. OPERATING ENVIRONMENT AND HUMAN FACTORS  9.1 General  The helicopter shall be designed to allow safe operation within the performance limitations of its passengers and those who operate, maintain and service it.  Note.— The human/machine interface is often the weak link in an operating environment; so, it is necessary to ensure that the helicopter is capable of being controlled at all phases of the flight (including any degradation due to failures) and that neither the crew nor passengers are harmed by the environment in which they have been placed for the duration of the flight.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.1 Standard	9.2 Flight crew  9.2.1 The helicopter shall be designed in such a way as to allow safe and efficient control by the flight crew. The design shall allow for variations in flight crew skill and physiology commensurate with flight crew licensing limits. Account shall be taken of the different expected operating conditions of the helicopter in its environment, including operations degraded by failures.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 9 Reference 9.2.2 Standard	9.2.2 The workload imposed on the flight crew by the design of the helicopter shall be reasonable at all stages of flight. Particular consideration shall be given to critical stages of flight and critical events which may reasonably be expected to occur during the service life of the helicopter, such as engine failure.  Note.— Workload can be affected by both cognitive and physiological factors.	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.3	9.3 Ergonomics  During design of the helicopter, account shall be taken of ergonomics factors including:	CAR Part 21, Appendix C.	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	<ul> <li>a) ease of use and prevention of inadvertent misuse;</li> <li>b) accessibility;</li> <li>c) flight crew working environment;</li> <li>d) cockpit standardization; and</li> <li>e) maintainability.</li> </ul>				

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Chapter 9 Reference 9.4 Standard	9.4 Operating environmental factors  The design of the helicopter shall take into consideration the flight crew operating environment including:  a) effect of aeromedical factors such as noise and vibration; and  b) effect of physical forces during normal flight.	•	No Difference		Compliance with Part IV is by incorporation by reference in CAR Part 21 of appropriate FARs.

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# LFTH EDITION - NOVEMBER 2018 Annex 8, Amendment 106

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Chapter 1 Reference 1.1.1 Standard	PART V. SMALL AEROPLANES  PART VA. AEROPLANES OVER 750 KG BUT NOT EXCEEDING 5 700 KG FOR WHICH APPLICATION FOR CERTIFICATION WAS SUBMITTED ON OR AFTER 13 DECEMBER 2007 BUT	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
	BEFORE 7 MARCH 2021 CHAPTER 1. GENERAL				
	1.1. Applicability  1.1.1 The Standards of this part are applicable in respect of all aeroplanes designated in 1.1.2 for which an application for the issue of a Type Certificate was submitted to the appropriate national authorities on or after 13 December 2007 but before 7 March 2021.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.1.2 Standard	1.1.2 Except for those Standards and Recommended Practices which specify a different applicability, the Standards and Recommended Practices of this part shall apply to all aeroplanes having a maximum certificated take-off mass greater than 750 kg but not exceeding 5 700 kg intended for the carriage of passengers or cargo or mail in international air navigation.  Note 1.— The aeroplanes described in 1.1.2 are known in some States as normal, utility and aerobatic category aeroplanes.  Note 2.— The following Standards do not include quantitative specifications comparable to those found in national airworthiness codes. In accordance with 1.2.1 of Part II, these Standards are to be supplemented by requirements established, adopted or accepted by Contracting States.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.1.3 Standard	1.1.3 The level of airworthiness defined by the appropriate parts of the comprehensive and detailed national code referred to in 1.2.1 of Part II for the aeroplanes designated in 1.1.2 shall be at least substantially equivalent to the overall level intended by the broad Standards of this part.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.1.4 Standard	1.1.4 Unless otherwise stated, the Standards apply to the complete aeroplane including its powerplant, systems and equipment.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.2.1 Standard	1.2.1 Limiting conditions shall be established for the aeroplane, its powerplant, systems and equipment (see 7.2). Compliance with the Standards of this part shall be established assuming that the aeroplane is operated within the limitations specified. The limitations shall include a margin of safety to render the likelihood of accidents arising therefrom extremely remote.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.2.2 Standard	1.2.2 Limiting ranges of any parameter whose variation may compromise the safe operation of the aeroplane, e.g. mass, centre of gravity location, load distribution, speeds, ambient air temperature and altitude, shall be established within which compliance with all the pertinent Standards in this part is shown.  Note 1.— The maximum operating mass and centre of	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
	gravity limits may vary, for example, with each altitude and with each separate operating condition, e.g. take-off, en route, landing.  Note 2.— Maximum operating mass may be limited by the application of noise certification Standards (see Annex 16 — Environmental Protection, Volume I — Aircraft Noise, and Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes and Part II — International General Aviation — Aeroplanes).				

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Chapter 1 Reference 1.3 Standard	1.3 Unsafe features and characteristics  Under all anticipated operating conditions, the aeroplane shall not possess any feature or characteristic that renders it unsafe.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.4 Standard	The means by which compliance with the appropriate airworthiness requirements is demonstrated shall ensure that in each case the accuracy achieved will be such as to provide reasonable assurance that the aeroplane, its components and equipment comply with the requirements and are reliable and function correctly under the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.1.1 Standard	CHAPTER 2. FLIGHT  2.1 General  2.1.1 Compliance with the Standards prescribed in this chapter shall be established by flight or other tests conducted upon an aeroplane or aeroplanes of the type for which a Type Certificate is sought, or by calculations (or other methods) based on such tests, provided that the results obtained by calculations (or other methods) are equal in accuracy to, or conservatively represent, the results of direct testing.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.1.2 Standard	2.1.2 Compliance with each Standard shall be established for all applicable combinations of aeroplane mass and centre of gravity position, within the range of loading conditions for which certification is sought.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.1.3 Standard	2.1.3 Where necessary, appropriate aeroplane configurations shall be established for the determination of performance in the various stages of flight and for the investigation of the aeroplane's flying qualities.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.1 Standard	2.2.1 Sufficient data on the performance of the aeroplane shall be determined and scheduled in the flight manual to provide operators with the necessary information for the purpose of determining the total mass of the aeroplane on the basis of the values, peculiar to the proposed flight, of the relevant operational parameters, in order that the flight may be made with reasonable assurance that a safe minimum performance for that flight will be achieved.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.2.2 Standard	2.2.2 Achieving the performance scheduled for the aeroplane shall take into consideration human performance and in particular shall not require exceptional skill or alertness on the part of the flight crew.  Note.— Guidance material on human performance can be found in the Human Factors Training Manual (Doc 9683).	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.2.3 Standard	2.2.3 The scheduled performance of the aeroplane shall be consistent with compliance with 1.2.1 and with the operation in logical combinations of those of the aeroplane's systems and equipment, the operation of which may affect performance.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.2.4  Standard	2.2.4 Minimum performance  Minimum performance shall be scheduled for aeroplanes with more than one engine that are turbine-powered or have a maximum certificated take-off mass of over 2 721 kg as follows:  a) at the maximum masses scheduled (see 2.2.7) for take-off and for landing, as functions of the aerodrome elevation or pressure-altitude either in the standard atmosphere or in specified still air atmospheric conditions; and  b) for seaplanes in specified conditions in smooth water,  the aeroplane shall be capable of accomplishing the minimum performances specified in 2.2.5 a) and 2.2.6 a) respectively, not considering obstacles, or runway or water run length.  Note.— This Standard permits the maximum take-off mass and maximum landing mass to be scheduled in the flight manual against, for example:  — aerodrome elevation, or  — pressure-altitude at aerodrome level, or  — pressure-altitude and atmospheric temperature at aerodrome level, so as to be readily usable when applying the national code	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
	on aeroplane performance operating limitations.				

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Chapter 2	2.2.5 Take-off	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is
Reference	2.2.3 1440 011	CART art 21, Appendix C.	No Difference		by incorporation by
2.2.5	a) For aeroplanes with more than one engine that are turbine-powered or have a maximum certificated take-off mass of over 2 721 kg, after the end of the				reference in CAR Part 21 of appropriate FARs.
Standard	period during which the take-off power or thrust may be used, the aeroplane shall be capable of continuing to climb, with the critical engine inoperative and the remaining engine(s) operated within their maximum continuous power or thrust limitations, up to a height that it can maintain and at which it can continue safe flight and landing.  b) The minimum performance at all stages of take-off and climb shall be sufficient to ensure that under conditions of operation departing slightly from the idealized conditions for which data is scheduled (see 2.2.7), the departure from the scheduled values is not disproportionate.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.2.6 Standard	<ul> <li>a) For aeroplanes for which application for certification was submitted on or after 24 February 2013, aeroplanes with one engine, or a single propeller, or aeroplanes with more than one engine that cannot maintain a positive climb gradient following an engine or propeller failure, the design shall, in the case of engine or propeller failure, enable the aeroplane to be operated to a safe forced landing in favourable conditions.</li> <li>b) For aeroplanes with more than one engine that are turbine-powered or have a maximum certificated take-off mass of over 2 721 kg, starting from the approach configuration and with the critical engine inoperative, the aeroplane shall be capable, in the event of a missed approach, of continuing the flight to a point from which another approach can be made.</li> <li>c) Starting from the landing configuration, the aeroplane shall be capable, in the event of a balked landing, of making a climb-out, with all engines operating.</li> </ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2	2.2.7 Scheduling of performance	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is
Reference		7 11			by incorporation by
2.2.7	Performance data shall be determined and scheduled in the				reference in CAR Part 21 of
	flight manual in order to provide a safe relationship between the performance of the aeroplane and the aerodromes and				appropriate FARs.
Standard	routes on which it is capable of being operated. Performance				
	data shall be determined and scheduled for the following stages for the ranges of mass, altitude or pressure-altitude,				
	wind velocity, gradient of the take-off and landing surface for				
	landplanes; water surface conditions, density of water and				
	strength of current for seaplanes; and for any other				
	operational variables for which the aeroplane is to be certificated.				
	connected.				
	a) Take-off. The take-off performance data shall include				
	the distance required to take-off and climb to a selected height above the take-off surface. It shall be				
	determined for each mass, altitude and temperature				
	within the operational limits established for take-off with:				
	<ul> <li>take-off power on each engine;</li> <li>wing flaps in the take-off position(s); and</li> </ul>				
	wing haps in the take-on position(s), and				
	— landing gear extended.				
	b) En route. For aeroplanes with more than one engine,				
	the en-route climb performance shall be the climb (or				
	descent) performance with the aeroplane in the				
	en-route configuration with the critical engine inoperative. The operating engine(s) shall not exceed				
	maximum continuous power or thrust.				
	c) Landing. The landing distance shall be the horizontal				
	distance traversed by the aeroplane from a point on				
	the approach flight path at a selected height above the landing surface to the point on the landing				
	are landing surface to the point on the landing				

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	surface at which the aeroplane comes to a complete stop, or, for a seaplane, comes to a satisfactorily low speed. The selected height above the landing surface and the approach speed shall be appropriately related to operating practices. This distance may be supplemented by such distance margin as may be necessary; if so, the selected height above the landing surface, the approach speed and the distance margin shall be appropriately interrelated and shall make provision for both normal operating practices and reasonable variations therefrom.				
Chapter 2 Reference 2.3.1 Standard	2.3 Flying qualities  2.3.1 The aeroplane shall comply with the Standards of 2.3 at all altitudes up to the maximum anticipated altitude relevant to the particular requirement in all temperature conditions relevant to the altitude in question and for which the aeroplane is approved.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.3.2.1 Standard	2.3.2 Controllability  2.3.2.1 The aeroplane shall be controllable and manoeuvrable under all anticipated operating conditions, and it shall be possible to make smooth transitions from one flight condition to another (e.g. turns, sideslips, changes of engine power or thrust, changes of aeroplane configurations) without requiring exceptional skill, alertness or strength on the part of the pilot even in the event of failure of any engine. A technique for safely controlling the aeroplane shall be established for all stages of flight and aeroplane configurations for which performance is scheduled.  *Note.— This Standard is intended, among other things, to relate to operation in conditions of no appreciable atmospheric turbulence and also to ensure that there is no undue deterioration of the flying qualities in turbulent air.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.2.2 Standard	2.3.2.2 Controllability on the ground (or water). The aeroplane shall be controllable on the ground (or on the water) during taxiing, take-off and landing under the anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3.2.3 Standard	2.3.2.3 Controllability during take-off. The aeroplane shall be controllable in the event of sudden failure of the critical engine at any point in the take-off.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 2 Reference 2.3.2.4 Standard	2.3.2.4 Take-off safety speed. The take-off safety speeds assumed when the performance of the aeroplane (after leaving the ground or water) during the take-off is determined shall provide an adequate margin above the stall and above the minimum speed at which the aeroplane remains controllable after sudden failure of the critical engine.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 2 Reference 2.3.3 Standard	2.3.3 Trim  The aeroplane shall have such trim characteristics as to ensure that the demands made on the pilot's attention and ability to maintain a desired flight condition are not excessive when account is taken of the stage of flight at which these demands occur and their duration. This shall apply both in normal operation and in the conditions associated with the failure of one or more engines for which performance characteristics are established.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.4.1	2.4 Stability and control  2.4.1 Stability	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	The aeroplane shall have such stability in relation to its other flight characteristics, performance, structural strength and most probable operating conditions (e.g. aeroplane configurations and speed ranges) as to ensure that demands made on the pilot's powers of concentration are not excessive when the stage of the flight at which these demands occur and their duration are taken into account. The stability of the aeroplane shall not, however, be such that excessive demands are made on the pilot's strength or that the safety of the aeroplane is prejudiced by lack of manoeuvrability in emergency conditions. The stability may be achieved by natural or artificial means, or a combination of both. In those cases where artificial stability is necessary to show compliance with the Standards of this part, it shall be shown that any failure or condition that would result in the need for exceptional pilot skill or strength for recovery of aeroplane stability is extremely improbable.				

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Chapter 2 Reference 2.4.2.1 Standard	2.4.2 Stalling  2.4.2.1 Stall warning. Until 7 March 2021, when the aeroplane approaches a stall both in straight and turning flight, a clear and distinctive stall warning shall be apparent to the pilot with the aeroplane in all permissible configurations, except those which are not considered to be essential for safe flying. The stall warning and other characteristics of the aeroplane shall be such as to enable the pilot to arrest the development of the stall after the warning begins and, without altering the engine power or thrust, to maintain full control of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.4.2.2 Standard	2.4.2.2 Behaviour following a stall. In any configuration and at any level of power or thrust in which it is considered that the ability to recover from a stall is essential, the behaviour of the aeroplane following a stall shall not be so extreme as to make difficult a prompt recovery without exceeding the airspeed or strength limitations of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.4.2.3 Standard	2.4.2.3 Stalling speeds. The stalling speeds or minimum steady flight speeds in configurations appropriate for each stage of flight (e.g. take-off, en route, landing) shall be established. One of the values of the power or thrust used in establishing the stalling speeds shall be not more than that necessary to give zero thrust at a speed just above the stall.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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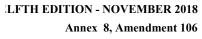
### Report on entire Annex

		eport on entire Annex			
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.4.3.1 Standard	2.4.3. Flutter and vibration  2.4.3.1 It shall be demonstrated by suitable tests, analyses or any acceptable combination of tests and analyses that all parts of the aeroplane are free from flutter and excessive vibration in all aeroplane configurations under all speed conditions within the operating limitations of the aeroplane (see 1.2.2). There shall be no vibration or buffeting severe enough to cause structural damage.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.4.3.2 Standard	2.4.3.2 There shall be no vibration or buffeting severe enough to interfere with control of the aeroplane or to cause excessive fatigue to the flight crew.  Note.— Buffeting as a stall warning is considered desirable and discouragement of this type of buffeting is not intended.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.4.4 Standard	It shall be demonstrated that the aeroplane during normal operation does not exhibit any tendency to inadvertently enter into a spin. If the design is such that spinning is allowed or for aeroplanes with one engine inadvertently possible, it shall be demonstrated that with normal use of the controls and without the use of exceptional piloting skill the aeroplane can be recovered from a spin within appropriate recovery limits.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.1 Standard	CHAPTER 3. STRUCTURE  3.1 General  The aeroplane structure shall be designed, manufactured and provided with instructions for its maintenance and repair with the objective of avoiding catastrophic failure throughout its operational life.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.2 Standard	Unless otherwise stated, all structural Standards shall be complied with when the mass is varied over the applicable range and is distributed in the most adverse manner, within the operating limitations on the basis of which certification is sought.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.3 Standard	3.3 Limit loads  Except as might be otherwise qualified, the external loads and the corresponding inertia loads, or resisting loads obtained for the various loading conditions prescribed in 3.6 shall be considered as limit loads.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 3 Reference 3.4 Standard	3.4 Strength and deformation  In the various loading conditions prescribed in 3.6, no part of the aeroplane structure shall sustain detrimental deformation at any load up to and including the limit load, and the aeroplane structure shall be capable of supporting the ultimate load.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 3 Reference 3.5.1	3.5 Airspeeds 3.5.1 Design airspeeds	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Standard	Design airspeeds shall be established for which the aeroplane structure is designed to withstand the corresponding manoeuvring and gust loads. To avoid inadvertent exceedences due to upsets or atmospheric variations, the design airspeeds shall provide sufficient margin for the establishment of practical operational limiting airspeeds. In addition, the design airspeeds shall be sufficiently greater than the stalling speed of the aeroplane to safeguard against loss of control in turbulent air. Consideration shall be given to a design manoeuvring speed, a design cruising speed, a design dive speed and any other design airspeeds necessary for configurations with high lift or other special devices.					
Chapter 3 Reference 3.5.2 Standard	3.5.2 Limiting airspeeds  Limiting airspeeds, based on the corresponding design airspeeds with safety margins, where appropriate, in accordance with 1.2.1, shall be included in the flight manual as part of the operating limitations (see 7.2).	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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	Standard or Recommended Practice	Regulation or Document Reference	implementation of SARP's	notified to ICAO	reason for the difference
Chapter 3	3.6 Strength	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is
Reference					by incorporation by
3.6.1	3.6.1 All structural elements shall be designed to withstand the maximum loads expected in service under all anticipated operating conditions without failure, permanent				reference in CAR Part 21 of appropriate FARs.
Standard	distortion or loss of functionality. In determining these loads, account shall be taken of:				
	a) the expected operational life of the aeroplane;				
	b) the vertical and horizontal gust environment, taking into consideration the expected variations in mission profile and loading configurations;				
	c) the manoeuvre spectrum, taking into account variations in mission profile and loading configurations;				
	d) asymmetrical as well as symmetrical loading;				
	e) the ground and water loads, including taxi, landing and take-off loads, and ground/water handling loads;				
	f) the speed range of the aeroplane, taking into account the aeroplane characteristics and operation limitations;				
	g) vibration and buffeting loads;				
	h) corrosion or other degradation, given the maintenance specified, and various operating environments; and				
	i) any other loads, such as flight control loads, cabin pressurization loads, engine loads, or dynamic loads due to changes to the steady state configuration.				

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Chapter 3 Reference 3.6.2 Standard	3.6.2 The air, inertia and other loads resulting from the specific loading conditions shall be distributed so as to approximate actual conditions closely or to represent them conservatively.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.7 Standard	The aeroplane shall be designed so as to provide the occupants with the maximum practicable protection in the event of structural failure, or in the event of damage due to ground, water or object impact. Consideration shall be given to at least the following:  a) energy absorption by the airframe, occupant seats and restraints; and  b) allowing egress in the shortest practicable time.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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New Zealand	Report on entire Annex  Annex 8, Amendment 106					
Annex Reference	AIRWORTHINESS OF AIRCRAFT	State Legislation, Regulation or Document	Level of implementation	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
	Standard or Recommended Practice	Reference	of SARP's			
Chapter 3 Reference 3.8 Standard	The structure of the aeroplane shall conform to damage tolerance, safe-life or failsafe principles and shall be such as to avoid catastrophic failure during the operational life, taking into account, where appropriate:  a) the expected environment;  b) the expected repeated loads applied in service;  c) expected vibrations from aerodynamic interaction or internal sources;  d) thermal cycles;  e) accidental and discrete source damage;	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.	
	f) likely corrosion or other degradation; g) specified maintenance; and h) likely structural repairs.					

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.9 Standard	3.9 Special factors  For aeroplanes for which application for certification was submitted on or after 24 February 2013, design features (e.g. castings, bearings or fittings), the strength of which is subject to variability in manufacturing processes, deterioration in service or any other cause, shall be accounted for by a suitable factor.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.1	CHAPTER 4. DESIGN AND CONSTRUCTION	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	4.1.1 Details of design and construction shall be such as to give reasonable assurance that all aeroplane parts will function effectively and reliably in the anticipated operating conditions. They shall be based upon practices that experience has proven to be satisfactory or that are substantiated by special tests or by other appropriate investigations or both. They shall also consider human factors principles.  Note.— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc 9683).				

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Chapter 4 Reference 4.1.2 Standard	4.1.2 Substantiation of moving parts  The functioning of all moving parts essential to the safe operation of the aeroplane shall be demonstrated in order to ensure that they will function correctly under all operating conditions for such parts.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.3 Standard	4.1.3 Materials  All materials used in parts of the aeroplane essential for its safe operation shall conform to approved specifications. The approved specifications shall be such that materials accepted as complying with the specifications will have the essential properties assumed in the design.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.4 Standard	4.1.4 Manufacturing methods  The methods of manufacturing and assembly shall be such as to produce a consistently sound structure which shall be reliable with respect to maintenance of strength in service.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.1.5 Standard	4.1.5 Protection  The structure shall be protected against deterioration or loss of strength in service due to weathering, corrosion, abrasion or other causes, which could pass unnoticed, taking into account the maintenance the aeroplane will receive.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 4 Reference 4.1.6 Standard	4.1.6 Inspection provisions  Adequate provision shall be made to permit any necessary examination, replacement or reconditioning of parts of the aeroplane that require such attention, either periodically or after unusually severe operations.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4	4.2 Systems design features	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is
Reference		7 11			by incorporation by
4.2	Special consideration shall be given to design features that affect the ability of the flight crew to maintain controlled flight.				reference in CAR Part 21 of appropriate FARs.
	This shall include at least the following:				
Standard	<ul> <li>a) Controls and control systems. The design of the controls and control systems shall be such as to minimize the possibility of jamming, inadvertent operation including prevention of mis-assembly, and unintentional engagement of control surface locking devices.</li> <li>1) Each control and control system shall operate with the ease, smoothness and precision appropriate to its functions.</li> <li>2) Each element of each flight control system shall be designed, or distinctively and permanently marked, to minimize the probability of any incorrect assembly that could result in the malfunction of the system.</li> <li>b) System survivability. Aeroplane systems shall be designed and arranged to maximize the potential for continued safe flight and landing after events resulting in damage to the aeroplane structure or systems.</li> </ul>				
	c) Crew environment. The design of the flight crew compartment shall be such as to minimize the possibility of incorrect or restricted operation of the controls by the crew, due to fatigue, confusion or interference. Consideration shall be given at least to the following: layout and identification of controls and instruments, rapid identification of emergency situations, sense of controls, ventilation, heating and				

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d) Pilot vision. The arrangement of the flight crew compartment shall be such as to afford a sufficiently extensive, clear and undistorted field of vision for the safe operation of the aeroplane, and to prevent glare and reflections that would interfere with the pilot's vision. The design features of the windshield shall permit, under precipitation conditions of moderate rain, sufficient vision for the normal conduct of flight and for the execution of approaches and landings.  c) Provision for emergencies. Means shall be provided which shall either automatically prevent, or enable the flight crew to deal with, emergencies resulting from foreseeable failures of equipment and systems, the failure of which would endanger the aeroplane. Reasonable provisions shall be made for continuation of essential services following negine or system failures to the extent that such failures are catered for in the performance and operating limitations specified in the Standards in this Annex and in Annex 6, Parts I and II.  f) Fire precautions. The design of the aeroplane and the materials used in its manufacture shall be such so as to minimize the risk of in-flight and ground fires, and to minimize the production of smoke and toxic gases in the event of a fire.	Annex Reference		Regulation or Document	implementation	Comments including the reason for the difference
1) Sources of heat within the compartment which are capable of igniting the cargo or baggage shall be shielded or insulated to prevent such ignition; and		<ul> <li>d) Pilot vision. The arrangement of the flight crew compartment shall be such as to afford a sufficiently extensive, clear and undistorted field of vision for the safe operation of the aeroplane, and to prevent glare and reflections that would interfere with the pilot's vision. The design features of the windshield shall permit, under precipitation conditions of moderate rain, sufficient vision for the normal conduct of flight and for the execution of approaches and landings.</li> <li>e) Provision for emergencies. Means shall be provided which shall either automatically prevent, or enable the flight crew to deal with, emergencies resulting from foreseeable failures of equipment and systems, the failure of which would endanger the aeroplane. Reasonable provisions shall be made for continuation of essential services following engine or system failures to the extent that such failures are catered for in the performance and operating limitations specified in the Standards in this Annex and in Annex 6, Parts I and II.</li> <li>f) Fire precautions. The design of the aeroplane and the materials used in its manufacture shall be such so as to minimize the risk of in-flight and ground fires, and to minimize the production of smoke and toxic gases in the event of a fire.</li> <li>g) Cargo compartment protection.</li> <li>1) Sources of heat within the compartment which are capable of igniting the cargo or baggage shall be shielded or insulated to prevent such</li> </ul>			

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	2) Each cargo and baggage compartment shall be constructed of materials which are at least flame resistant.  h) Incapacitation of occupants. Design precautions shall be taken to protect against possible instances of cabin depressurization and against the presence of smoke or other toxic gases that could incapacitate the occupants of the aeroplane.				
Chapter 4 Reference 4.3 Standard	4.3 Aeroelasticity  The aeroplane shall be free from flutter, structural divergence, control reversal, loss of control due to structural deformation and aeroelastic effects, at all speeds within and sufficiently beyond the design envelope to comply with 1.2.1. Account shall be taken of the characteristics of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.4.1 Standard	4.4 Occupant accommodation features  4.4.1 Seating and restraints  Adequate seating and restraints shall be provided for the occupants, taking account of the likely flight and emergency landing loads to be encountered. Attention shall be paid to minimizing injury to occupants due to contact with surrounding structures during the operation of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.4.2 Standard	4.4.2 Cabin environment  Ventilation, heating and, where applicable, pressurization systems shall be designed to provide the cabin with an adequate environment during the anticipated flight and ground or water operating conditions. The systems design shall also consider likely emergency conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.5.1 Standard	<ul> <li>4.5 Electrical bonding and protection against lightning and static electricity</li> <li>4.5.1 Electrical bonding and protection against lightning and static electricity shall be such as to:</li> <li>a) protect the aeroplane, its systems, its occupants and those who come in contact with the aeroplane on the ground or water from the dangerous effects of lightning discharge and electrical shock; and</li> <li>b) prevent dangerous accumulation of electrostatic charge.</li> </ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.5.2 Standard	4.5.2 The aeroplane shall also be protected against catastrophic effects of lightning. Due account shall be taken of the material used in the construction of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.6.1 Standard	4.6 Emergency landing provisions  4.6.1 Provisions shall be made in the design of the aeroplane to protect the occupants, in the event of an emergency landing, from fire and from the direct effects of deceleration forces as well as from injuries arising from the effect of deceleration forces on the aeroplane's interior equipment.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.6.2 Standard	4.6.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane and shall be shown to be suitable for their intended purpose.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 4 Reference 4.7 Standard	4.7 Ground handling  Design provisions and procedures for safe ground-handling (e.g. towing, jacking) shall be defined. The protection that any limitations and instructions for such operations might provide may be taken into account.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5 Reference 5.1 Standard	CHAPTER 5. POWERPLANT  5.1 Engines  The Standards of Part VI of this Annex shall apply to each engine that is used on the aeroplane as a primary propulsion unit.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.2 Standard	5.2 Propellers  The Standards of Part VII of this Annex shall apply to each propeller that is used on the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.1 Standard	5.3 Powerplant installation  5.3.1 Compliance with engine and propeller limitations  The powerplant installation shall be so designed that the engines and propellers (if applicable) are capable of functioning reliably in the anticipated operating conditions. In conditions established in the flight manual, the aeroplane shall be capable of being operated without exceeding the limitations established for the engines and propellers in accordance with this chapter and Parts VI and VII.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 5 Reference 5.3.2 Standard	5.3.2 Control of engine rotation  In those installations where continued rotation of a failed engine would increase the hazard of fire or of a serious structural failure, means shall be provided for the crew to stop the rotation of the failed engine in flight or to reduce it to a safe level.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.3 Standard	5.3.3 Turbine engine installation  For a turbine engine installation:  a) the design shall minimize the hazards to the aeroplane in the event of failure of engine rotating parts, or an engine fire which burns through the engine case; and  b) the powerplant installation shall be designed to give reasonable assurance that those engine operating limitations that adversely affect the structural integrity of rotating parts shall not be exceeded in service.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.4 Standard	5.3.4 Engine restarting  Means shall be provided for restarting an engine in flight at altitudes up to a declared maximum altitude.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5 Reference 5.3.5.1 Standard	5.3.5 Arrangement and functioning  5.3.5.1 Independence of engines. For aeroplanes for which application for certification was submitted before 24 February 2013, the powerplant shall be arranged and installed so that each engine together with its associated systems is capable of being controlled and operated independently from the others and so that there is at least one arrangement of the powerplant and systems in which any failure, unless the probability of its occurrence is extremely remote, cannot result in a loss of more power than that resulting from complete failure of the critical engine.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.5.2 Standard	<ul> <li>5.3.5.2 Independence of engines and associated systems. For aeroplanes for which application for certification was submitted on or after 24 February 2013, the engines together with their associated systems shall be arranged and isolated from each other to allow operation, in at least one configuration, so that the failure or malfunction of any engine, or the failure or malfunction (including destruction by fire in the engine compartment) of any system that can affect an engine (other than a fuel tank if only one fuel tank is installed), will not:</li> <li>a) prevent the continued safe operation of the remaining engine(s); or</li> <li>b) require immediate action by any crew member for continued safe operation of the remaining engine(s).</li> </ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 5 Reference 5.3.5.3	5.3.5.3 <i>Propeller vibration</i> . The propeller vibration stresses shall be determined and shall not exceed values that have been found safe for operation within the operating limitations established for the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.5.4 Standard	5.3.5.4 <i>Cooling</i> . The cooling system shall be capable of maintaining the temperature of powerplant components and fluids within the established limits (see 5.3.1) at ambient air temperatures up to the maximum air temperature appropriate to the intended operation of the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 5 Reference 5.3.5.5 Standard	5.3.5.5 Associated systems. The fuel, oil, air induction and other systems associated with the powerplant shall be capable of supplying each engine in accordance with its established requirements, under all conditions affecting the functioning of the systems (e.g. engine power or thrust, aeroplane attitudes and accelerations, atmospheric conditions, fluid temperatures) within the anticipated operating conditions.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5	5.3.5.6 Fire protection. For regions of the powerplant	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is
Reference	where the potential fire hazards are particularly serious	7 11			by incorporation by
5.3.5.6	because of the proximity of ignition sources to combustible materials, the following shall apply in addition to the general Standard of 4.2 f).				reference in CAR Part 21 of appropriate FARs.
Standard	Standard 01 4.2 1).				
Stanuaru	<ul> <li>a) Isolation. Such regions shall be isolated by fireproof material from other regions of the aeroplane where the presence of fire would jeopardize continued flight, taking into account the probable points of origin and paths of propagation of fire.</li> <li>b) Flammable fluids. Flammable fluid system components located in such regions shall be fire resistant. Drainage of each region shall be provided to minimize hazards resulting from the failure of any component containing flammable fluids. Means shall be provided for the crew to shut off the flow of flammable fluids into such regions if a fire occurs. Where sources of flammable fluid exist in such regions, the whole of the related system within the region, including supporting structure, shall be fireproof or shielded from the effects of the fire.</li> <li>c) Fire detection. A sufficient number of fire detectors shall be provided and located to ensure rapid detection of any fire that might occur in such regions of the following aeroplane types: aeroplanes with more than one engine powered by turbine or turbo-charged engines, or aeroplanes where the engine(s) are not readily visible from the cockpit.</li> </ul>				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6	CHAPTER 6. SYSTEMS AND EQUIPMENT	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is
Reference		21,11ppenum c.	1.0 2111010110		by incorporation by
6.1.1					reference in CAR Part 21 of
	6.1 General				appropriate FARs.
Standard	0.1 General				
	6.1.1 The aeroplane shall be provided with approved instruments, equipment and systems, including guidance and flight management systems necessary for the safe operation of the aeroplane in the anticipated operating conditions. These shall include the instruments and equipment necessary to				
	enable the crew to operate the aeroplane within its operating limitations. Instruments and equipment design shall consider human factors principles.				
	Note 1.— Instruments and equipment additional to the minimum necessary for the issuance of a Certificate of Airworthiness are prescribed in Annex 6, Parts I and II, for particular circumstances or on particular kinds of routes.				
	Note 2.— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc 9683).				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.1.2 Standard	<ul> <li>6.1.2 The design of the instruments, equipment and systems required by 6.1.1 and their installation shall be such that:</li> <li>a) an inverse relationship exists between the probability of a failure condition and the severity of its effect on the aircraft and its occupants, as determined by a system safety assessment process;</li> <li>b) they perform their intended function under all anticipated operating conditions; and</li> <li>c) electromagnetic interference between them is minimized.</li> </ul>	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.1.3 Standard	6.1.3 Means shall be provided to warn the crew of unsafe system operating conditions and to enable them to take corrective action.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.1.4 Standard	6.1.4 Electrical power supply  The design of the electrical power supply system shall be such as to enable it to supply power loads during normal operations and shall also be such that no single failure or malfunction could impair the ability of the system to supply essential loads for safe operation.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.1.5 Standard	6.1.5 Development assurance of complex electronic hardware and system software  For aeroplanes for which application for certification was submitted on or after 24 February 2013, complex electronic hardware and system software shall be developed, verified and validated such as to ensure that the systems in which they are used perform their intended functions at a level of safety that complies with the requirements of this part, notably those of 6.1.2 a) and 6.1.2 b).  Note.— Some States accept the use of national or international industry standards for the development assurance (development, verification and validation) of complex electronic hardware and systems software.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.2 Standard	6.2 Installation  Instrument and equipment installations shall comply with the Standards of Chapter 4.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.3 Standard	Prescribed safety and survival equipment that the crew or passengers are expected to use or operate at the time of an emergency shall be reliable, readily accessible and easily identified, and its method of operation shall be plainly marked.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 6 Reference 6.4.1 Standard	6.4 Navigation lights and anti-collision lights  6.4.1 The lights required by Annex 2 — Rules of the Air to be displayed by aeroplanes in flight or operating on the movement area of an aerodrome shall have intensities, colours, fields of coverage and other characteristics such that they furnish the pilot of another aircraft or personnel on the ground with as much time as possible for interpretation and for subsequent manoeuvre necessary to avoid a collision. In the design of such lights, due account shall be taken of the conditions under which they may reasonably be expected to perform these functions.  Note.— It is likely that lights will be viewed against a variety of backgrounds, such as typical city lighting, clear starry sky, moonlit water and daytime conditions of low background luminance. Furthermore, collision risk situations are most likely to arise in terminal control areas in which aircraft are manoeuvring in the intermediate and lower flight levels at closing speeds that are unlikely to exceed 900 km/h (500 kt).		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.4.2 Standard	6.4.2 Lights shall be installed in aeroplanes so as to minimize the possibility that they will adversely affect the satisfactory performance of the flight crews' duties.  Note.— In order to avoid the effects mentioned in 6.4.2, it will be necessary in some cases to provide means whereby the pilot can adjust the intensity of the flashing lights.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 6 Reference 6.5 Standard	6.5 Electromagnetic interference protection  Aeroplane electronic systems, particularly flight-critical and flight-essential systems, shall be protected against electromagnetic interference from both internal and external sources.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 6 Reference 6.6 Standard	6.6 Ice protection  If certification for flight in icing conditions is requested, the aeroplane shall be shown to be able to operate safely in icing conditions likely to be encountered in all anticipated operating environments.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.1	CHAPTER 7. OPERATING LIMITATIONS AND INFORMATION	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	7.1 General  The operating limitations within which compliance with the Standards of this Annex is determined, together with any other information necessary to the safe operation of the aeroplane, shall be made available by means of a flight manual, markings and placards, and such other means as may effectively accomplish the purpose.				
Chapter 7 Reference 7.2.1 Standard	7.2.1 Limitations which might be exceeded in flight and which are defined quantitatively shall be expressed in suitable units. These limitations shall be corrected if necessary for errors in measurements so that the flight crew can, by reference to the instruments available to them, readily determine when the limitations are reached.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.2 Standard	7.2.2 Loading limitations  The loading limitations shall include all limiting masses, centre of gravity positions, mass distributions and floor loadings (see 1.2.2).	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 7 Reference 7.2.3 Standard	7.2.3 Airspeed limitations  The airspeed limitations shall include all speeds (see 3.5.2) that are limiting from the standpoint of structural integrity or flying qualities of the aeroplane, or from other considerations. These speeds shall be identified with respect to the appropriate aeroplane configurations and other pertinent factors.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.4 Standard	7.2.4 Powerplant limitations  The powerplant limitations shall include all those established for the various powerplant components as installed in the aeroplane (see 5.3.1 and 5.3.5.4).	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.5 Standard	7.2.5 Limitations on equipment and systems  The limitations on equipment and systems shall include all those established for the various equipment and systems as installed in the aeroplane.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.2.6 Standard	7.2.6 Miscellaneous limitations  Miscellaneous limitations shall include any necessary limitations with respect to conditions found to be prejudicial to the safety of the aeroplane (see 1.2.1).	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 7 Reference 7.2.7 Standard	7.2.7 Flight crew limitations  The flight crew limitations shall include the minimum number of flight crew personnel necessary to operate the aeroplane, having regard, among other things, to the accessibility to the appropriate crew members of all necessary controls and instruments and to the execution of the established emergency procedures.  Note.— The circumstances in which the flight crew shall include members in addition to the minimum flight crew are defined in Annex 6, Parts I and II.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.3.1 Standard	7.3.1 Types of eligible operations  The particular types of operations for which the aeroplane has been shown to be eligible by virtue of compliance with the appropriate airworthiness requirements shall be listed.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Chapter 7 Reference 7.3.2 Standard	The loading information shall include the empty mass of the aeroplane, together with a definition of the condition of the aeroplane at the time of weighing, the corresponding centre of gravity position, and the reference points and datum lines to which the centre of gravity limits are related.  Note.— Usually the empty mass excludes the mass of the crew and payload, the usable fuel supply and the drainable oil; it includes the mass of all fixed ballast, unusable fuel supply, undrainable oil, total quantity of engine coolant and total quantity of hydraulic fluid.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.3.3 Standard	7.3.3 Operating procedures  A description shall be given of normal and emergency operating procedures which are peculiar to the particular aeroplane and necessary for its safe operation. These shall include procedures to be followed in the event of failure of one or more engines.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.3.4 Standard	7.3.4 Handling information  Sufficient information shall be given on any significant or unusual features of the aeroplane characteristics. Those stalling speeds or minimum steady flight speeds required to be established by 2.4.2.3 shall be scheduled.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.4 Standard	7.4 Performance information  The performance of the aeroplane shall be scheduled in accordance with 2.2. There shall be included information regarding the various aeroplane configurations and powers or thrusts involved and the relevant speeds, together with information that would assist the flight crew in attaining the performance as scheduled.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.5 Standard	7.5 Flight manual  A flight manual shall be made available. It shall identify clearly the specific aeroplane or series of aeroplanes to which it is related. The flight manual shall include at least the limitations, information and procedures specified in 7.2, 7.3, 7.4 and 7.6.1.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.6.1 Standard	7.6 Markings and placards  7.6.1 Markings and placards on instruments, equipment, controls, etc., shall include such limitations or information as necessary for the direct attention of the flight crew during flight.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.6.2 Standard	7.6.2 Markings and placards or instructions shall be provided to give any information that is essential to the ground crew in order to preclude the possibility of mistakes in ground servicing (towing, refuelling, etc.) that could pass unnoticed and that could jeopardize the safety of the aeroplane in subsequent flights.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.7.1 Standard	7.7 Continuing airworthiness — maintenance information  7.7.1 General  Information for use in developing procedures for maintaining the aeroplane in an airworthy condition shall be made available. The information shall include that described in 7.7.2, 7.7.3 and 7.7.4.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.7.2 Standard	7.7.2 Maintenance information  Maintenance information shall include a description of the aeroplane and recommended methods for the accomplishment of maintenance tasks. Such information shall include guidance on defect diagnosis.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.7.3 Standard	7.7.3 Maintenance programme information  Maintenance programme information shall include the maintenance tasks and the recommended intervals at which these tasks are to be performed.  Note.— The development of initial maintenance programme information at the time of aircraft type certification is sometimes referred to as the Maintenance Review Board (MRB) process or the process of developing instructions for continued airworthiness.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 7 Reference 7.7.4 Standard	7.7.4 Mandatory maintenance requirements resulting from the type design approval  Mandatory maintenance requirements that have been specified by the State of Design as part of the approval of the type design shall be identified as such and included in the maintenance information of 7.7.3.  Note.— Mandatory requirements identified as part of the type design approval are often referred to as Certification Maintenance Requirements (CMR) and/or airworthiness limitations.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference				
Chapter 8 Reference 8.1	CHAPTER 8. CRASHWORTHINESS AND CABIN SAFETY	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.				
Standard	8.1 General  Crashworthiness shall be taken into account in the design of aeroplanes to improve the probability of occupant survival.								
Chapter 8 Reference 8.2.1 Standard	8.2.1 For aeroplanes for which application for certification was submitted before 24 February 2013, emergency landing (crash) loads shall be determined for all categories of aeroplanes so that the interiors, furnishings, support structure and safety equipment can be designed to maximize survivability for the occupants. Items to be considered shall include:  a) dynamic effects;  b) restraint criteria for items that could cause a hazard;  c) distortion of the fuselage in the areas of emergency exits;  d) fuel cell integrity and position; and  e) integrity of electrical systems to avoid sources of ignition.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference		
Chapter 8 Reference 8.2.2 Standard	8.2.2 For aeroplanes for which application for certification was submitted on or after 24 February 2013, emergency landing (crash) loads shall be determined so that the interiors, furnishings, support structure and safety equipment can be designed to protect the occupants under emergency landing conditions. Items to be considered shall include:  a) dynamic effects;  b) restraint criteria for items that could cause a hazard;  c) deformation of the fuselage in the areas of emergency exits;  d) fuel cell integrity and position; and  e) integrity of electrical systems to avoid sources of ignition.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8 Reference 8.3 Standard	8.3 Cabin fire protection  The cabin shall be so designed as to provide fire protection to the occupants in the event of airborne systems failures or a crash situation. Items to be considered shall include:  a) flammability of cabin interior materials;  b) fire resistance and the generation of smoke and toxic fumes;  c) provision of safety features to allow for safe evacuation; and  d) fire detection and suppression equipment.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 o appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8 Reference 8.4 Standard	8.4 Evacuation  The aeroplane shall be equipped with sufficient emergency exits to allow for cabin evacuation within an appropriate time period. Items to be considered, appropriate to the size of the aeroplane, shall include:  a) number of seats and seating configuration;  b) number, location and size of exits;  c) marking of exits and provision of instructions for use;  d) likely blockages of exits;  e) operation of exits; and  f) positioning and weight of evacuation equipment at exits, e.g. rafts.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8 Reference 8.5 Standard	8.5 Lighting and marking  Emergency lighting, if installed, shall have the following characteristics:  a) independence from main electrical supply;  b) automatic activation upon loss of normal power/impact;  c) visual indication of emergency exits;  d) illumination both inside and outside the aeroplane during evacuation; and  e) no additional hazards in the event of fuel spillage, emergency landings and minor crash events.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.1 Standard	CHAPTER 9. OPERATING ENVIRONMENT AND HUMAN FACTORS  9.1 General  The aeroplane shall be designed to allow safe operation within the performance limitations of its passengers and those who operate, maintain and service it.  Note.— The human/machine interface is often the weak link in an operating environment;so, it is necessary to ensure that the aeroplane is capable of being controlled at all phases of the flight (including any degradation due to failures) and that neither the crew nor passengers are harmed by the environment in which they have been placed for the duration of the flight.		No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.2.1 Standard	9.2.1 The aeroplane shall be designed in such a way as to allow safe and efficient control by the flight crew. The design shall allow for variations in flight crew skill and physiology commensurate with flight crew licensing limits. Account shall be taken of the different expected operating conditions of the aeroplane in its environment, including operations degraded by failures.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.2.2 Standard	9.2.2 The workload imposed on the flight crew by the design of the aeroplane shall be reasonable at all stages of flight. Particular consideration shall be given to critical stages of flight and critical events which may reasonably be expected to occur during the service life of the aeroplane, such as a contained engine failure or windshear encounter.  Note.— Workload can be affected by both cognitive and physiological factors.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 9 Reference 9.3	9.3 Ergonomics  During design of the aeroplane, account shall be taken of ergonomic factors including:	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	<ul> <li>a) ease of use and prevention of inadvertent misuse;</li> <li>b) accessibility;</li> <li>c) flight crew working environment;</li> <li>d) cockpit standardization; and</li> <li>e) maintainability.</li> </ul>				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.4 Standard	9.4 Operating environmental factors  The design of the aeroplane shall take into consideration the flight crew operating environment including:  a) effect of aeromedical factors such as level of oxygen, temperature, humidity, noise and vibration;  b) effect of physical forces during normal flight;  c) effect of prolonged operation at high altitude; and  d) physical comfort.	CAR Part 21, Appendix C.	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.4.2.1 Standard	2.4.2.1 Stall warning. As of 7 March 2021, when the aeroplane approaches a stall both in straight and turning flight, a clear and distinctive stall warning shall be apparent to the pilot with the aeroplane in all permissible configurations and powers or thrusts, except those which are not considered to be essential for safe flying. The stall warning and other characteristics of the aeroplane shall be such as to enable the pilot to arrest the development of the stall after the warning begins and, without altering the engine power or thrust, to maintain full control of the aeroplane.	7 11	No Difference		Compliance with Part V is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.1.1 Standard	PART VI. ENGINES  CHAPTER 1. GENERAL	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.
	1.1.1 Except as noted below, the Standards of this part are applicable to engines of all types, used as primary propulsion units, as required in Parts IIIB, IVB and V. The Standards of this part are applicable to an engine type at the time of submission of an application to the appropriate national authority for a type approval.  Note.— The following Standards do not include quantitative specifications comparable to those found in national airworthiness codes. In accordance with 1.2.1 of Part II, these Standards are to be supplemented by requirements established, adopted or accepted by Contracting States.				
Chapter 1 Reference 1.1.2 Standard	1.1.2 The level of airworthiness defined by the appropriate parts of the comprehensive and detailed national code for the engines designated in 1.1.1 shall be at least substantially equivalent to the overall level intended by the broad Standards of this part.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.2.1 Standard	1.2 Engine installation and interfaces  1.2.1 All necessary information for the safe and correct interfaces between the engine and the aircraft shall be made available.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.2.2 Standard	1.2.2 The installation instructions shall specify those assumptions concerning the conditions that may be imposed on the engine when it is eventually installed in an aircraft.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.3.1 Standard	1.3.1 The thrust or power ratings and the conditions of the atmosphere upon which they are based and all operating conditions and limitations which are intended to govern the operation of the engine shall be declared.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.3.2 Standard	1.3.2 Within the stated limits of 1.3.1, the engine shall produce the thrust or power demanded of it at all required flight conditions, taking into account environmental effects and conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.4.1 Standard	1.4.1 General  Information for use in developing procedures for maintaining the engine in an airworthy condition shall be made available. The information shall include that described in 1.4.2, 1.4.3 and 1.4.4.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.4.2 Standard	1.4.2 Maintenance information  Maintenance information shall include a description of the engine and recommended methods for the accomplishment of maintenance tasks. Such information shall include guidance on defect diagnosis.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.4.3 Standard	1.4.3 Maintenance programme information  Maintenance programme information shall include the maintenance tasks and the recommended intervals at which these tasks are to be performed.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.4.4 Standard	1.4.4 Mandatory maintenance requirements resulting from the type design approval  Mandatory maintenance requirements that have been specified by the State of Design as part of the approval of the type design shall be identified as such and included in the maintenance information of 1.4.3.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.1 Standard	CHAPTER 2. DESIGN AND CONSTRUCTION  2.1 Functioning  The engine shall be designed and constructed so as to function reliably within its operating limitations under its anticipated operating conditions when installed in accordance with Parts IIIB, IVB and V of this Annex and, if applicable, fitted with a propeller approved for the installation.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 2 Reference 2.2 Standard	2.2 Failure analysis  For turbine engines, a safety assessment of the engine shall be conducted to ensure that it functions safely throughout the full range of operating conditions. A summary shall be made of all foreseeable failures and combinations of failures that result in hazardous engine effects. If the primary failure of single elements (for example, disks) is likely to result in hazardous engine effects, reliance shall be placed on meeting prescribed integrity requirements.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.	
Chapter 2 Reference 2.3 Standard	2.3 Materials and manufacturing methods  The selection of materials and the manufacturing methods and processes shall account for the operational environment of the engine expected in service. The materials and manufacturing methods and processes used in the construction of the engine shall result in known and reproducible structural behaviour.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.	

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2	2.4 Integrity	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is
Reference	, , , , , , , , , , , , , , , , , , ,	011101 u.v 21,11pp v.u.u 0.			by incorporation by
2.4	The integrity of the engine shall be demonstrated throughout its operating envelope and be maintained for its operational life. The effects of cyclic loading, environmental and				reference in CAR Part 21 of appropriate FARs.
Standard	operational degradation and likely subsequent part failures shall not reduce the integrity of the engine below acceptable levels. All necessary instructions for ensuring continued airworthiness in this regard shall be promulgated.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3	CHAPTER 3. TESTS	CAR Part 21, Appendix C.	No Difference		Compliance with Part VI is by incorporation by reference in CAR Part 21 of appropriate FARs.
Standard	The engine type shall complete satisfactorily such tests as are necessary to verify the validity of the declared ratings, conditions and limitations and to ensure that it will operate satisfactorily and reliably. The tests shall include at least the following:				
	a) Power calibration. Tests shall be conducted to establish the power or thrust characteristics of the engine when new and also after the tests in b) and c). There shall be no excessive decrease in power at the conclusion of all the tests specified.				
	b) Operation. Tests shall be conducted to ensure that starting, idling, acceleration, vibration, over-speeding and other characteristics are satisfactory and to demonstrate adequate margins of freedom from detonation, surge, flutter or other detrimental conditions as may be appropriate to the particular type engine.				
	c) Endurance. Tests of sufficient duration shall be conducted at such powers, thrust, speeds, temperatures and other operating conditions as are necessary to demonstrate reliability and durability of the engine. They shall also include operation under conditions in excess of the declared limits to the extent that such limitations might be exceeded in actual service.				
	d) Operating Environment. Tests shall be conducted to ensure that the engine characteristics are satisfactory with regard to the operating environment.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	Note.— Operating environment may include encounter with birds, rain and hail, electromagnetic interference and lightning.				
Chapter 1 Reference 1.1.1 Standard	PART VB. AEROPLANES NOT EXCEEDING 5 700 KG FOR WHICH APPLICATION FOR CERTIFICATION IS SUBMITTED ON OR AFTER 7 MARCH 2021  CHAPTER 1. GENERAL  1.1 Applicability  1.1.1 The Standards of this part are applicable in respect of all aeroplanes designated in 1.1.2 for which an application for the issue of a Type Certificate is submitted to the appropriate national authorities on or after 7 March 2021.		Not Applicable		Part VB is currently not applicable; the one aircraft type (PAC 750XL) for which New Zealand is both the State of Design and State of Manufacture was granted FAR Part 23 certification on 10 March 2004. In the event of a new type emerging before this part becomes applicable, compliance with Part VB will be by incorporation by reference in CAR Part 21 Appendix C of the appropriate FARs.

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Chapter 1 Reference 1.1.2 Standard	Practices which specify a different applicability, the Standards and Recommended Practices which specify a different applicability, the Standards and Recommended Practices of this part shall apply to all aeroplanes having a maximum certificated take-off mass not exceeding 5 700 kg intended for the carriage of passengers or cargo or mail in international air navigation.  **Note 1.— Guidance material concerning the appropriate airworthiness safety levels commensurate with acceptable risk levels is contained in the Airworthiness Manual (Doc 9760).  **Note 2.— The following Standards do not include quantitative specifications comparable to those found in national airworthiness codes. In accordance with 1.2.1 of Part II, these Standards are to be supplemented by requirements established, adopted or accepted by Contracting States.		Not Applicable		
Chapter 1 Reference 1.1.3 Standard	1.1.3 The level of airworthiness defined by the appropriate parts of the comprehensive and detailed national code referred to in 1.2.1 of Part II for the aeroplanes designated in 1.1.2 shall be at least substantially equivalent to the overall level intended by the broad Standards of this part.		Not Applicable		
Chapter 1 Reference 1.1.4 Standard	1.1.4 Unless otherwise stated, the Standards apply to the complete aeroplane including its powerplants, systems and equipment.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.2.1 Standard	1.2.1 Limiting conditions shall be established for the aeroplane, its powerplant, systems and equipment (see 7.2). Compliance with the Standards of this part shall be established assuming that the aeroplane is operated within the limitations specified. The limitations shall include a margin of safety to render the likelihood of accidents arising therefrom extremely remote.		Not Applicable		
Chapter 1 Reference 1.2.2 Standard	1.2.2 Limiting ranges of any parameter whose variation may compromise the safe operation of the aeroplane, e.g. mass, centre of gravity location, load distribution, speeds, ambient air temperature and altitude, shall be established within which compliance with all the pertinent Standards in this part is shown.		Not Applicable		
	Note 1.— The maximum operating mass and centre of gravity limits may vary, for example, with each altitude and with each separate operating condition, e.g. take-off, en route, landing.  Note 2.— Maximum operating mass may be limited by the application of Noise Certification Standards (see Annex 16 — Environmental Protection, Volume I — Aircraft Noise, and Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes and Part II — International General Aviation — Aeroplanes).				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1	1.3 Unsafe features and characteristics		Not Applicable		
Reference	1.5 Charte features and characteristics		Not Applicable		
1.3	Under all anticipated operating conditions, the aeroplane shall not possess any feature or characteristic that renders it unsafe.				
Standard					
Chapter 1	1.4 Proof of compliance		Not Applicable		
Reference	11. 11.001 01 comp		1 tot / ipplicable		
1.4	The means by which compliance with the appropriate airworthiness requirements is demonstrated shall ensure that in each case the accuracy achieved will be such as to provide				
Standard	reasonable assurance that the aeroplane, its components and equipment comply with the requirements and are reliable and function correctly under the anticipated operating conditions.  Note.— Guidance material on the proportionality approach in respect of reasonable assurance for compliance				
	with appropriate airworthiness requirements is contained in Doc 9760.				

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Chapter 2	CHAPTER 2. FLIGHT		Not Applicable		
Reference			i veti ippii cue i c		
2.1.1					
Standard	2.1 General				
Stanuaru	2.1.1 Compliance with the Standards prescribed in this chapter shall be established by flight or other tests conducted upon an aeroplane or aeroplanes of the type for which a Type Certificate is sought, or by calculations (or other methods) based on such tests, provided that the results obtained by calculations (or other methods) are equal in accuracy to, or conservatively represent, the results of direct testing.				
Chapter 2 Reference 2.1.2	2.1.2 Compliance with each Standard shall be established for all applicable combinations of aeroplane mass and centre of gravity position, within the range of loading conditions for which certification is sought.		Not Applicable		
Standard					
Chapter 2 Reference 2.1.3	2.1.3 Where necessary, appropriate aeroplane configurations shall be established for the determination of performance in the various stages of flight and for the investigation of the aeroplane's flying qualities.		Not Applicable		
Standard					

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2	2.2 Performance		Not Applicable		
Reference	2.2 Terrormance		Not Applicable		
2.2.1	2.2.1 Sufficient data on the performance of the aeroplane shall be determined and furnished in the flight manual to provide operators with the necessary information for the				
Standard	purpose of determining the maximum total mass of the aeroplane at the time of take-off that would allow the flight to be made with reasonable assurance that a safe minimum performance for that flight will be achieved considering the values of the operational parameters peculiar to the proposed flight.				
Chapter 2	2.2.2 Achieving the performance scheduled for the		Not Applicable		
Reference	aeroplane shall take into consideration human performance		Not Applicable		
2.2.2	and in particular shall not require exceptional skill or alertness on the part of the flight crew.				
Standard	Note.— Guidance material on human performance can be found in the Human Factors Training Manual (Doc 9683).				
Chapter 2	2.2.3 The scheduled performance of the aeroplane shall		Not Applicable		
Reference	be consistent with compliance with 1.2.1 and with the		rotrippiicuoic		
2.2.3	operation in logical combinations of those of the aeroplane's systems and equipment, the operation of which may affect performance.				
Standard					

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Chapter 2	2.2.4 Minimum performance		Not Applicable		
Reference	•		Pp		
2.2.4	Minimum performance shall be scheduled for aeroplanes with more than one engine that are turbine-powered or have a maximum certificated take-off mass of over 2 721 kg as follows:				
Standard					
	a) at the maximum masses scheduled (see 2.2.7) for take-off and for landing, as functions of the aerodrome elevation or pressure-altitude either in the standard atmosphere or in specified still air atmospheric conditions; and  b) for seaplanes in specified conditions in smooth water,  the aeroplane shall be capable of accomplishing the minimum performances specified in 2.2.5 a) and 2.2.6 a) respectively, not considering obstacles, or runway or water run length.  Note.— This Standard permits the maximum take-off mass and maximum landing mass to be scheduled in the flight manual against, for example:  — aerodrome elevation, or  — pressure-altitude at aerodrome level, or  — pressure-altitude and atmospheric temperature at aerodrome level, so as to be readily usable when applying the national code on aeroplane performance operating limitations.				

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AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
2.2.5 Take-off		Not Applicable		
2.2.3 Take-Off		Not Applicable		
<ul> <li>a) For aeroplanes with more than one engine that are turbine-powered or have a maximum certificated take-off mass of over 2 721 kg, after the end of the period during which the take-off power or thrust may be used, the aeroplane shall be capable of continuing to climb, with the critical engine inoperative and the remaining engine(s) operated within their maximum continuous power or thrust limitations, up to a height that it can maintain and at which it can continue safe flight and landing.</li> <li>b) The minimum performance at all stages of take-off and climb shall be sufficient to ensure that under conditions of operation departing slightly from the idealized conditions for which data is scheduled (see</li> </ul>				
2.2.7), the departure from the scheduled values is not disproportionate.				
	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice  2.2.5 Take-off  a) For aeroplanes with more than one engine that are turbine-powered or have a maximum certificated take-off mass of over 2 721 kg, after the end of the period during which the take-off power or thrust may be used, the aeroplane shall be capable of continuing to climb, with the critical engine inoperative and the remaining engine(s) operated within their maximum continuous power or thrust limitations, up to a height that it can maintain and at which it can continue safe flight and landing.  b) The minimum performance at all stages of take-off and climb shall be sufficient to ensure that under conditions of operation departing slightly from the idealized conditions for which data is scheduled (see 2.2.7), the departure from the scheduled values is not	Standard or Recommended Practice  2.2.5 Take-off  a) For aeroplanes with more than one engine that are turbine-powered or have a maximum certificated take-off mass of over 2 721 kg, after the end of the period during which the take-off power or thrust may be used, the aeroplane shall be capable of continuing to climb, with the critical engine inoperative and the remaining engine(s) operated within their maximum continuous power or thrust limitations, up to a height that it can maintain and at which it can continue safe flight and landing.  b) The minimum performance at all stages of take-off and climb shall be sufficient to ensure that under conditions of operation departing slightly from the idealized conditions for which data is scheduled (see 2.2.7), the departure from the scheduled values is not	Standard or Recommended Practice  2.2.5 Take-off  a) For aeroplanes with more than one engine that are turbine-powered or have a maximum certificated take-off mass of over 2 721 kg, after the end of the period during which the take-off power or thrust may be used, the aeroplane shall be capable of continuing to climb, with the critical engine inoperative and the remaining engine(s) operated within their maximum continuous power or thrust limitations, up to a height that it can maintain and at which it can continue safe flight and landing.  b) The minimum performance at all stages of take-off and climb shall be sufficient to ensure that under conditions of operation departing slightly from the idealized conditions for which data is scheduled (see 2.2.7), the departure from the scheduled values is not	Standard or Recommended Practice  2.2.5 Take-off  a) For aeroplanes with more than one engine that are turbine-powered or have a maximum certificated take-off mass of over 2 721 kg, after the end of the period during which the take-off power or thrust may be used, the aeroplane shall be capable of continuing to climb, with the critical engine inoperative and the remaining engine(s) operated within their maximum continuous power or thrust limitations, up to a height that it can maintain and at which it can continue safe flight and landing.  b) The minimum performance at all stages of take-off and climb shall be sufficient to ensure that under conditions of operation departing slightly from the idealized conditions for which data is scheduled (see 2.2.7), the departure from the scheduled values is not

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	Report on entire Annex				
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2	2.2.6 Landing		Not Applicable		
Reference	2.2.0		Тостърневые		
2.2.6	a) For aeroplanes for which application for certification was submitted on or after 24 February 2013,				
Standard	aeroplanes with one engine, or a single propeller, or aeroplanes with more than one engine that cannot maintain a positive climb gradient following an engine or propeller failure, the design shall, in the case of engine or propeller failure, enable the aeroplane to be operated to a safe forced landing in favourable conditions.				
	<ul> <li>b) For aeroplanes with more than one engine that are turbine-powered or have a maximum certificated take-off mass of over 2 721 kg, starting from the approach configuration and with the critical engine inoperative, the aeroplane shall be capable, in the event of a missed approach, of continuing the flight to a point from which another approach can be made.</li> <li>c) Starting from the landing configuration, the aeroplane shall be capable, in the event of a balked landing, of making a climb-out, with all engines operating.</li> </ul>				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2	2.2.7 Scheduling of performance		Not Applicable		
Reference	3 · F · · · · · ·		rotrippiicuoic		
2.2.7	Performance data shall be determined and scheduled in the flight manual in order to provide a safe relationship between the performance of the aeroplane and the aerodromes and				
Standard	routes on which it is capable of being operated. Performance data shall be determined and scheduled for the following stages for the ranges of mass, altitude or pressure-altitude, wind velocity, gradient of the take-off and landing surface for landplanes; water surface conditions, density of water and strength of current for seaplanes; and for any other operational variables for which the aeroplane is to be certificated.				
	a) Take-off. The take-off performance data shall include the distance required to take-off and climb to a selected height above the take-off surface. It shall be determined for each mass, altitude and temperature within the operational limits established for take-off with:				
	<ul> <li>take-off power on each engine;</li> <li>wing flaps in the take-off position(s); and</li> </ul>				
	<ul> <li>— landing gear extended.</li> </ul>				
	b) En route. For aeroplanes with more than one engine, the en-route climb performance shall be the climb (or descent) performance with the aeroplane in the en-route configuration with the critical engine inoperative. The operating engine(s) shall not exceed maximum continuous power or thrust.				
	c) Landing. The landing distance shall be the horizontal distance traversed by the aeroplane from a point on the approach flight path at a selected height above the landing surface to the point on the landing				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
	surface at which the aeroplane comes to a complete stop, or, for a seaplane, comes to a satisfactorily low speed. The selected height above the landing surface and the approach speed shall be appropriately related to operating practices. This distance may be supplemented by such distance margin as may be necessary; if so, the selected height above the landing surface, the approach speed and the distance margin shall be appropriately interrelated and shall make provision for both normal operating practices and reasonable variations therefrom.				
Chapter 2 Reference 2.3.1 Standard	2.3 Flying qualities  2.3.1 The aeroplane shall comply with the Standards of 2.3 at all altitudes up to the maximum anticipated altitude relevant to the particular requirement in all temperature conditions relevant to the altitude in question and for which the aeroplane is approved.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.3.2.1 Standard	2.3.2 Controllability  2.3.2.1 The aeroplane shall be controllable and manoeuvrable under all anticipated operating conditions, and it shall be possible to make smooth transitions from one flight condition to another (e.g. turns, sideslips, changes of engine power or thrust, changes of aeroplane configurations) without requiring exceptional skill, alertness or strength on the part of the pilot even in the event of failure of any engine. A technique for safely controlling the aeroplane shall be established for all stages of flight and aeroplane configurations for which performance is scheduled.  Note.— This Standard is intended, among other things, to relate to operation in conditions of no appreciable atmospheric turbulence and also to ensure that there is no undue deterioration of the flying qualities in turbulent air.		Not Applicable		
Chapter 2 Reference 2.3.2.2 Standard	2.3.2.2 Controllability on the ground (or water). The aeroplane shall be controllable on the ground (or on the water) during taxiing, take-off and landing under the anticipated operating conditions.		Not Applicable		
Chapter 2 Reference 2.3.2.3 Standard	2.3.2.3 Controllability during take-off. The aeroplane shall be controllable in the event of sudden failure of the critical engine at any point in the take-off.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.3.2.4 Standard	2.3.2.4 Take-off safety speed. The take-off safety speeds assumed when the performance of the aeroplane (after leaving the ground or water) during the take-off is determined shall provide an adequate margin above the stall and above the minimum speed at which the aeroplane remains controllable after sudden failure of the critical engine.		Not Applicable		
Chapter 2 Reference 2.3.3 Standard	2.3.3 Trim  The aeroplane shall have such trim characteristics as to ensure that the demands made on the pilot's attention and ability to maintain a desired flight condition are not excessive when account is taken of the stage of flight at which these demands occur and their duration. This shall apply both in normal operation and in the conditions associated with the failure of one or more engines for which performance characteristics are established.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.4.1 Standard	2.4.1 Stability  The aeroplane shall have such stability in relation to its other flight characteristics, performance, structural strength, and most probable operating conditions (e.g. aeroplane configurations and speed ranges) as to ensure that demands made on the pilot's powers of concentration are not excessive when the stage of the flight at which these demands occur and their duration are taken into account. The stability of the aeroplane shall not, however, be such that excessive demands are made on the pilot's strength or that the safety of the aeroplane is prejudiced by lack of manoeuvrability in emergency conditions. The stability may be achieved by natural or artificial means, or a combination of both. In those cases where artificial stability is necessary to show compliance with the Standards of this part, it shall be shown that any failure or condition that would result in the need for exceptional pilot skill or strength for recovery of aeroplane stability is extremely improbable.		Not Applicable		
Chapter 2 Reference 2.4.2.1 Standard	2.4.2 Stalling  2.4.2.1 Stall warning. When the aeroplane approaches a stall both in straight and turning flight, a clear and distinctive stall warning shall be apparent to the pilot with the aeroplane in all permissible configurations, except those which are not considered to be essential for safe flying. The stall warning and other characteristics of the aeroplane shall be such as to enable the pilot to arrest the development of the stall after the warning begins and, without altering the engine power or thrust, to maintain full control of the aeroplane.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.4.2.2 Standard	2.4.2.2 Behaviour following a stall. In any configuration and at any level of power or thrust in which it is considered that the ability to recover from a stall is essential, the behaviour of the aeroplane following a stall shall not be so extreme as to make difficult a prompt recovery without exceeding the airspeed or strength limitations of the aeroplane.		Not Applicable		
Chapter 2 Reference 2.4.2.3 Standard	2.4.2.3 Stalling speeds. The stalling speeds or minimum steady flight speeds in configurations appropriate for each stage of flight (e.g. take-off, en route, landing) shall be established. One of the values of the power or thrust used in establishing the stalling speeds shall be not more than that necessary to give zero thrust at a speed just above the stall.		Not Applicable		
Chapter 2 Reference 2.4.3.1 Standard	2.4.3 Flutter and vibration  2.4.3.1 It shall be demonstrated by suitable tests, analyses or any acceptable combination of tests and analyses that all parts of the aeroplane are free from flutter and excessive vibration in all aeroplane configurations under all speed conditions within the operating limitations of the aeroplane (see 1.2.2). There shall be no vibration or buffeting severe enough to cause structural damage.		Not Applicable		
Chapter 2 Reference 2.4.3.2 Standard	2.4.3.2 There shall be no vibration or buffeting severe enough to interfere with control of the aeroplane or to cause excessive fatigue to the flight crew.  Note.— Buffeting as a stall warning is considered desirable and discouragement of this type of buffeting is not intended.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.4.4 Standard	It shall be demonstrated that the aeroplane during normal operation does not exhibit any tendency to inadvertently enter into a spin. If the design is such that spinning is allowed or for aeroplanes with one engine inadvertently possible, it shall be demonstrated that with normal use of the controls and without the use of exceptional piloting skill the aeroplane can be recovered from a spin within appropriate recovery limits.		Not Applicable		
Chapter 3 Reference 3.1 Standard	CHAPTER 3. STRUCTURE  3.1 General  The aeroplane structure shall be designed, manufactured and provided with instructions for its maintenance and repair with the objective of avoiding catastrophic failure throughout its operational life.		Not Applicable		
Chapter 3 Reference 3.2 Standard	3.2 Mass and mass distribution  Unless otherwise stated, all structural Standards shall be complied with when the mass is varied over the applicable range and is distributed in the most adverse manner, within the operating limitations on the basis of which certification is sought.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3	3.3 Limit loads		Not Applicable		
Reference	2.0 Elime louds		Not Applicable		
3.3	Except as might be otherwise qualified, the external loads and the corresponding inertia loads, or resisting loads obtained for the various loading conditions prescribed in 3.6 shall be				
Standard	considered as limit loads.				
Chapter 3	3.4 Strength and deformation		Not Applicable		
Reference	orr strongen and dolor matton		Not Applicable		
3.4	In the various loading conditions prescribed in 3.6, no part of the aeroplane structure shall sustain detrimental deformation at any load up to and including the limit load, and the				
Standard	aeroplane structure shall be capable of supporting the ultimate load.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3	3.5 Airspeeds		Not Applicable		
Reference	· ·		rotrippiicuoic		
3.5.1	3.5.1 Design airspeeds				
Standard	Design airspeeds shall be established for which the aeroplane structure is designed to withstand the corresponding manoeuvring and gust loads. To avoid inadvertent exceedences due to upsets or atmospheric variations, the design airspeeds shall provide sufficient margin for the establishment of practical operational limiting airspeeds. In addition, the design airspeeds shall be sufficiently greater than the stalling speed of the aeroplane to safeguard against loss of control in turbulent air. Consideration shall be given to a design manoeuvring speed, a design cruising speed, a design dive speed and any other design airspeeds necessary for configurations with high lift or other special devices.				
Chapter 3	3.5.2 Limiting airspeeds		Not Applicable		
Reference	5.5.2 Emining anspects		Not Applicable		
3.5.2	Limiting airspeeds, based on the corresponding design airspeeds with safety margins, where appropriate, in accordance with 1.2.1, shall be included in the flight manual as				
Standard	part of the operating limitations (see 7.2).				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT	State Legislation,	Level of	Text of the difference to be	Comments including the
Ammed Receivement	Standard or Recommended Practice	Regulation or Document Reference	implementation of SARP's	notified to ICAO	reason for the difference
Chapter 3	3.6 Strength		Not Applicable		
Reference	Site Strength		Not Applicable		
3.6.1	3.6.1 All structural elements shall be designed to withstand the maximum loads expected in service under all anticipated operating conditions without failure, permanent				
Standard	distortion or loss of functionality. In determining these loads, account shall be taken of:				
	a) the expected operational life of the aeroplane;				
	<ul> <li>the vertical and horizontal gust environment, taking into consideration the expected variations in mission profile and loading configurations;</li> </ul>				
	c) the manoeuvre spectrum, taking into account variations in mission profile and loading configurations;				
	d) asymmetrical as well as symmetrical loading;				
	e) the ground and water loads, including taxi, landing and take-off loads, and ground/water handling loads;				
	f) the speed range of the aeroplane, taking into account the aeroplane characteristics and operation limitations;				
	g) vibration and buffeting loads;				
	h) corrosion or other degradation, given the maintenance specified, and various operating environments; and				
	i) any other loads, such as flight control loads, cabin pressurization loads, engine loads, or dynamic loads due to changes to the steady state configuration.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3 Reference 3.6.2 Standard	3.6.2 The air, inertia and other loads resulting from the specific loading conditions shall be distributed so as to approximate actual conditions closely or to represent them conservatively.		Not Applicable		
Chapter 3 Reference 3.7 Standard	The aeroplane shall be designed so as to provide the occupants with the maximum practicable protection in the event of structural failure, or in the event of damage due to ground, water or object impact. Consideration shall be given to at least the following:  a) energy absorption by the airframe, occupant seats and restraints; and  b) allowing egress in the shortest practicable time.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3	3.8 Structural durability		NI . 4 A 12 1.1 .		
Reference	5.8 Structural durability		Not Applicable		
3.8	The structure of the aeroplane shall conform to damage				
	tolerance, safe-life or failsafe principles and shall be such as to avoid catastrophic failure during the operational life, taking				
Standard	into account, where appropriate:				
	a) the expected environment;				
	b) the expected repeated loads applied in service;				
	c) expected vibrations from aerodynamic interaction or internal sources;				
	d) thermal cycles;				
	e) accidental and discrete source damage;				
	f) likely corrosion or other degradation;				
	g) specified maintenance; and				
	h) likely structural repairs.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3	3.9 Special factors		Not Applicable		
Reference			Pp		
3.9	For aeroplanes for which application for certification was submitted on or after 24 February 2013, design features (e.g. castings, bearings or fittings), the strength of which is subject				
Standard	to variability in manufacturing processes, deterioration in service, or any other cause, shall be accounted for by a suitable factor.				
Chapter 4	CHAPTER 4. DESIGN AND		Not Applicable		
Reference	CONSTRUCTION		тот принави		
4.1.1	CONSTRUCTION				
Standard	4.1 General				
	4.1.1 Details of design and construction shall be such as to give reasonable assurance that all aeroplane parts will function effectively and reliably in the anticipated operating conditions. They shall be based upon practices that experience has proven to be satisfactory or that are substantiated by special tests or by other appropriate investigations or both. They shall also consider human factors principles.  Note.— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc				
	9683).				

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Chapter 4	4.1.2 Substantiation of moving parts		Not Applicable			
Reference						
4.1.2	The functioning of all moving parts essential to the safe operation of the aeroplane shall be demonstrated in order to ensure that they will function correctly under all operating					
Standard	conditions for such parts.					
Chapter 4	4.1.3 Materials		Not Applicable			
Reference			rotripplicable			
4.1.3	All materials used in parts of the aeroplane essential for its safe operation shall conform to approved specifications. The approved specifications shall be such that materials accepted					
Standard	as complying with the specifications will have the essential properties assumed in the design.					
Chapter 4	4.1.4 Manufacturing methods		Not Applicable			
Reference			Pp			
4.1.4	The methods of manufacturing and assembly shall be such as to produce a consistently sound structure which shall be reliable with respect to maintenance of strength in service.					
Standard						
Chapter 4	4.1.5 Protection		Not Applicable			
Reference			ppinousio			
4.1.5	The structure shall be protected against deterioration or loss of strength in service due to weathering, corrosion, abrasion or other causes, which could pass unnoticed, taking into					
Standard	account the maintenance the aeroplane will receive.					

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Chapter 4 Reference 4.1.6 Standard	4.1.6 Inspection provisions  Adequate provision shall be made to permit any necessary examination, replacement or reconditioning of parts of the aeroplane that require such attention, either periodically or after unusually severe operations.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4	4.2 Systems design features		Not Applicable		
Reference					
4.2	Special consideration shall be given to design features that affect the ability of the flight crew to maintain controlled flight. This shall include at least the following:				
Standard	This shall include at least the following.				
Standard	a) Controls and control systems. The design of the controls and control systems shall be such as to minimize the possibility of jamming, inadvertent operation including prevention of mis-assembly, and unintentional engagement of control surface locking devices.				
	Each control and control system shall operate with the ease, smoothness and precision appropriate to its functions.				
	<ol> <li>Each element of each flight control system shall be designed, or distinctively and permanently marked, to minimize the probability of any incorrect assembly that could result in the malfunction of the system.</li> </ol>				
	b) System survivability. Aeroplane systems shall be designed and arranged to maximize the potential for continued safe flight and landing after events resulting in damage to the aeroplane structure or systems.				
	c) Crew environment. The design of the flight crew compartment shall be such as to minimize the possibility of incorrect or restricted operation of the controls by the crew, due to fatigue, confusion or interference. Consideration shall be given at least to the following: layout and identification of controls and instruments, rapid identification of emergency situations, sense of controls, ventilation, heating and				

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Amex Reference  Standard or Recommended Practice    State Legislation, Regulation or Document Reference   Comments including the reason for the difference to the motified to ICAO of SARP's		K	eport on entire Annex	ı	**************************************
d) Pilot vision. The arrangement of the flight crew compartment shall be such as to afford a sufficiently extensive, clear and undistorted field of vision for the safe operation of the aeroplane, and to prevent glare and reflections that would interfere with the pilot's vision. The design features of the windshield shall permit, under precipitation conditions of moderate rain, sufficient vision for the normal conduct of flight and for the execution of approaches and landings.  e) Provision for emergencies. Means shall be provided which shall either automatically prevent, or enable the flight crew to deal with, emergencies resulting from foresceable failures of equipment and systems, the failure of which would endanger the aeroplane. Reasonable provisions shall be made for continuation of essential services following engine or system failures to the extent that such failures are catered for in the performance and operating limitations specified in the Standards in this Annex and in Annex 6, Paris I and II.  f) Fire precautions. The design of the aeroplane and the materials used in its manufacture shall be such so as to minimize the risk of in-flight and ground fires, and to minimize the production of smoke and toxic gases in the event of a fire.  g) Cargo compartment protection.  1) Sources of heat within the compartment which are capable of igniting the cargo or baggage shall be shelded or insulated to prevent such	Annex Reference		Regulation or Document	implementation	
		<ul> <li>d) Pilot vision. The arrangement of the flight crew compartment shall be such as to afford a sufficiently extensive, clear and undistorted field of vision for the safe operation of the aeroplane, and to prevent glare and reflections that would interfere with the pilot's vision. The design features of the windshield shall permit, under precipitation conditions of moderate rain, sufficient vision for the normal conduct of flight and for the execution of approaches and landings.</li> <li>e) Provision for emergencies. Means shall be provided which shall either automatically prevent, or enable the flight crew to deal with, emergencies resulting from foreseeable failures of equipment and systems, the failure of which would endanger the aeroplane. Reasonable provisions shall be made for continuation of essential services following engine or system failures to the extent that such failures are catered for in the performance and operating limitations specified in the Standards in this Annex and in Annex 6, Parts I and II.</li> <li>f) Fire precautions. The design of the aeroplane and the materials used in its manufacture shall be such so as to minimize the risk of in-flight and ground fires, and to minimize the production of smoke and toxic gases in the event of a fire.</li> <li>g) Cargo compartment protection.</li> <li>1) Sources of heat within the compartment which are capable of igniting the cargo or baggage shall be shielded or insulated to prevent such</li> </ul>			

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	2) Each cargo and baggage compartment shall be constructed of materials which are at least flame resistant.  h) Incapacitation of occupants. Design precautions shall be taken to protect against possible instances of cabin depressurization and against the presence of smoke or other toxic gases that could incapacitate the occupants of the aeroplane.				
Chapter 4 Reference 4.3 Standard	4.3 Aeroelasticity  The aeroplane shall be free from flutter, structural divergence, control reversal, loss of control due to structural deformation and aeroelastic effects, at all speeds within and sufficiently beyond the design envelope to comply with 1.2.1. Account shall be taken of the characteristics of the aeroplane.		Not Applicable		
Chapter 4 Reference 4.4.1 Standard	4.4 Occupant accommodation features  4.4.1 Seating and restraints  Adequate seating and restraints shall be provided for the occupants, taking account of the likely flight and emergency landing loads to be encountered. Attention shall be paid to minimizing injury to occupants due to contact with surrounding structures during the operation of the aeroplane.		Not Applicable		

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# Annex 8, Amendment 106

### Report on entire Annex

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 4 Reference 4.4.2 Standard	4.4.2 Cabin environment  Ventilation, heating and, where applicable, pressurization systems shall be designed to provide the cabin with an adequate environment during the anticipated flight and ground or water operating conditions. The systems design shall also consider likely emergency conditions.		Not Applicable		
Chapter 4 Reference 4.5.1 Standard	<ul> <li>4.5 Electrical bonding and protection against lightning and static electricity</li> <li>4.5.1 Electrical bonding, protection against static electricity and lightning protection when appropriate for the type of approved operations shall be such as to:</li> <li>a) protect the aeroplane, its systems, its occupants and those who come in contact with the aeroplane on the ground or water from the dangerous effects of lightning discharge and electrical shock; and</li> <li>b) prevent dangerous accumulation of electrostatic charge.</li> </ul>		Not Applicable		
Chapter 4 Reference 4.5.2 Standard	4.5.2 When appropriate for the type of approved operation, the aeroplane shall also be protected against catastrophic effects of lightning. Due account shall be taken of the material used in the construction of the aeroplane.		Not Applicable		

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AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
4.6 Emergency landing provisions		Not Applicable		
		Pp		
4.6.1 Provisions shall be made in the design of the aeroplane to protect the occupants, in the event of an emergency landing, from fire and from the direct effects of deceleration forces as well as from injuries arising from the effect of deceleration forces on the aeroplane's interior equipment.				
462 Facilities shall be provided for the rapid evecuation		NI. (A		
		Not Applicable		
emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane and shall be				
4.7 Ground handling		Not Applicable		
3		roorippiiouoio		
Design provisions and procedures for safe ground handling (e.g. towing, jacking) shall be defined. The protection that any limitations and instructions for such operations might provide				
may be taken into account.				
	4.6 Emergency landing provisions  4.6.1 Provisions shall be made in the design of the aeroplane to protect the occupants, in the event of an emergency landing, from fire and from the direct effects of deceleration forces as well as from injuries arising from the effect of deceleration forces on the aeroplane's interior equipment.  4.6.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane and shall be shown to be suitable for their intended purpose.  4.7 Ground handling  Design provisions and procedures for safe ground handling (e.g. towing, jacking) shall be defined. The protection that any limitations and instructions for such operations might provide	Standard or Recommended Practice  4.6 Emergency landing provisions  4.6.1 Provisions shall be made in the design of the aeroplane to protect the occupants, in the event of an emergency landing, from fire and from the direct effects of deceleration forces as well as from injuries arising from the effect of deceleration forces on the aeroplane's interior equipment.  4.6.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane and shall be shown to be suitable for their intended purpose.  4.7 Ground handling  Design provisions and procedures for safe ground handling (e.g. towing, jacking) shall be defined. The protection that any limitations and instructions for such operations might provide	Standard or Recommended Practice  4.6 Emergency landing provisions  4.6.1 Provisions shall be made in the design of the aeroplane to protect the occupants, in the event of an emergency landing, from fire and from the direct effects of deceleration forces as well as from injuries arising from the effect of deceleration forces on the aeroplane's interior equipment.  4.6.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane and shall be shown to be suitable for their intended purpose.  Not Applicable  4.7 Ground handling  Design provisions and procedures for safe ground handling (e.g. towing, jacking) shall be defined. The protection that any limitations and instructions for such operations might provide	Standard or Recommended Practice  Regulation or Document Reference  ### Reference  Regulation or Document Reference  ### Reference  ### Reference  ### Not Applicable  Not Applicable  Not Applicable  ### Not Applicable  Not Applicable  ### Regulation or Document Reference  ### Not Applicable  ### Not Applicable  ### Not Applicable  ### Not Applicable  ### Regulation or Document Reference  ### Not Applicable  ### Not Applicable  ### Reference  ### Not Applicable  ### Not Applicable  ### Reference  ### Not Applicable  ### Not Applicable  ### Design provisions and procedures for safe ground handling (e.g. towing, jacking) shall be defined. The protection that any limitations and instructions for such operations might provide

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		eport on entire Annex			
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5 Reference 5.1 Standard	CHAPTER 5. POWERPLANT  5.1 Engines  The Standards of Part VI of this Annex shall apply to each engine that is used on the aeroplane as a primary propulsion unit.		Not Applicable		
Chapter 5 Reference 5.2 Standard	5.2 Propellers  The Standards of Part VII of this Annex shall apply to each propeller that is used on the aeroplane.		Not Applicable		
Chapter 5 Reference 5.3.1 Standard	5.3 Powerplant installation  5.3.1 Compliance with engine and propeller limitations  The powerplant installation shall be so designed that the engines and propellers (if applicable) are capable of functioning reliably in the anticipated operating conditions. In conditions established in the flight manual, the aeroplane shall be capable of being operated without exceeding the limitations established for the engines and propellers in accordance with this chapter and Parts VI and VII.		Not Applicable		

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# Annex 8, Amendment 106

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5 Reference 5.3.2 Standard	5.3.2 Control of engine rotation  In those installations where continued rotation of a failed engine would increase the hazard of fire or of a serious structural failure, means shall be provided for the crew to stop the rotation of the failed engine in flight or to reduce it to a safe level.		Not Applicable		
Chapter 5 Reference 5.3.3 Standard	5.3.3 Turbine engine installation  For a turbine engine installation:  a) the design shall minimize the hazards to the aeroplane in the event of failure of engine rotating parts, or an engine fire which burns through the engine case; and  b) the powerplant installation shall be designed to give reasonable assurance that those engine operating limitations that adversely affect the structural integrity of rotating parts shall not be exceeded in service.		Not Applicable		
Chapter 5 Reference 5.3.4 Standard	5.3.4 Engine restarting  Means shall be provided for restarting an engine in flight at altitudes up to a declared maximum altitude.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5	5.3.5 Arrangement and functioning		Not Applicable		
Reference					
5.3.5.1	5.3.5.1 <i>Independence of engines.</i> The powerplant shall be arranged and installed so that each engine together with its associated systems is capable of being controlled and				
Standard	operated independently from the others and so that there is at least one arrangement of the powerplant and systems in which any failure, unless the probability of its occurrence is extremely remote, cannot result in a loss of more power than that resulting from complete failure of the critical engine.				
Chapter 5	5.3.5.2 Independence of engines and associated		Not Applicable		
Reference	systems. The engines together with their associated systems		- · · · · · · · · · · · · · · · · · · ·		
5.3.5.2	shall be arranged and isolated from each other to allow operation, in at least one configuration, so that the failure or malfunction of any engine, or the failure or malfunction				
Standard	(including destruction by fire in the engine compartment) of any system that can affect an engine (other than a fuel tank if only one fuel tank is installed), will not:				
	<ul> <li>a) prevent the continued safe operation of the remaining engine(s); or</li> </ul>				
	b) require immediate action by any crew member for continued safe operation of the remaining engine(s).				
Chapter 5	5.3.5.3 Propeller vibration. The propeller vibration		Not Applicable		
Reference	stresses shall be determined and shall not exceed values that		rr		
5.3.5.3	have been found safe for operation within the operating limitations established for the aeroplane.				
Standard					

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	Report on entire Annex				
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5 Reference 5.3.5.4 Standard	5.3.5.4 <i>Cooling</i> . The cooling system shall be capable of maintaining the temperature of powerplant components and fluids within the established limits (see 5.3.1) at ambient air temperatures up to the maximum air temperature appropriate to the intended operation of the aeroplane.		Not Applicable		
Chapter 5 Reference 5.3.5.5 Standard	5.3.5.5 Associated systems. The fuel, oil, air induction and other systems associated with the powerplant shall be capable of supplying each engine in accordance with its established requirements, under all conditions affecting the functioning of the systems (e.g. engine power or thrust, aeroplane attitudes and accelerations, atmospheric conditions, fluid temperatures) within the anticipated operating conditions.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 5	5.3.5.6 Fire protection. For regions of the powerplant		Not Applicable		
Reference	where the potential fire hazards are particularly serious		Pr ····		
5.3.5.6	because of the proximity of ignition sources to combustible materials, the following shall apply in addition to the general Standard of 4.2 f).				
Standard	Standard 01 1.2 1).				
Standard	<ul> <li>a) Isolation. Such regions shall be isolated by fireproof material from other regions of the aeroplane where the presence of fire would jeopardize continued flight, taking into account the probable points of origin and paths of propagation of fire.</li> <li>b) Flammable fluids. Flammable fluid system components located in such regions shall be fire resistant. Drainage of each region shall be provided to minimize hazards resulting from the failure of any component containing flammable fluids. Means shall be provided for the crew to shut off the flow of flammable fluids into such regions if a fire occurs. Where sources of flammable fluid exist in such regions, the whole of the related system within the region, including supporting structure, shall be fireproof or shielded from the effects of the fire.</li> <li>c) Fire detection. A sufficient number of fire detectors shall be provided and located to ensure rapid detection of any fire that might occur in such regions of the following aeroplane types: aeroplanes with more than one engine powered by turbine or turbo-charged engines, or aeroplanes where the engine(s) are not readily visible from the cockpit.</li> </ul>				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6	CHAPTER 6. SYSTEMS AND EQUIPMENT		Not Applicable		
Reference			rotrippiicuoic		
6.1.1					
Standard	6.1 General				
Standard	6.1.1 The aeroplane shall be provided with approved instruments, equipment and systems, including guidance and flight management systems necessary for the safe operation of the aeroplane in the anticipated operating conditions. These shall include the instruments and equipment necessary to enable the crew to operate the aeroplane within its operating limitations. Instruments and equipment design shall consider human factors principles.  **Note 1.— Instruments and equipment additional to the minimum necessary for the issuance of a Certificate of Airworthiness are prescribed in Annex 6, Parts 1 and II, for particular circumstances or on particular kinds of routes.  **Note 2.— Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc 9683).**				

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	R	Manual .			
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.1.2 Standard	6.1.2 The design of the instruments, equipment and systems required by 6.1.1 and their installation shall be such that:  a) an inverse relationship exists between the probability of a failure condition and the severity of its effect on the aircraft and its occupants, as determined by a system safety assessment process;  b) they perform their intended function under all anticipated operating conditions; and  c) electromagnetic interference between them is minimized.		Not Applicable		
Chapter 6 Reference 6.1.3 Standard	6.1.3 Means shall be provided to warn the crew of unsafe system operating conditions and to enable them to take corrective action.		Not Applicable		
Chapter 6 Reference 6.1.4 Standard	6.1.4 Electrical power supply  The design of the electrical power supply system shall be such as to enable it to supply power loads during normal operations and shall also be such that no single failure or malfunction could impair the ability of the system to supply essential loads for safe operation.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6 Reference 6.1.5 Standard	6.1.5 Development assurance of complex electronic hardware and system software  For aeroplanes for which application for certification was submitted on or after 24 February 2013, complex electronic hardware and system software shall be developed, verified and validated such as to ensure that the systems in which they are used perform their intended functions at a level of safety that complies with the requirements of this part, notably those of 6.1.2 a) and 6.1.2 b).  Note.— Some States accept the use of national or international industry standards for the development assurance (development, verification and validation) of complex electronic hardware and systems software.		Not Applicable		
Chapter 6 Reference 6.2 Standard	6.2 Installation  Instrument and equipment installations shall comply with the Standards of Chapter 4.		Not Applicable		
Chapter 6 Reference 6.3 Standard	6.3 Safety and survival equipment  Prescribed safety and survival equipment that the crew or passengers are expected to use or operate at the time of an emergency shall be reliable, readily accessible and easily identified, and its method of operation shall be plainly marked.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 6	6.4 Navigation lights and anti-collision lights		Not Applicable		
Reference			'		
6.4.1	6.4.1 The lights required by Annex 2 — <i>Rules of the Air</i> to be displayed by aeroplanes in flight or operating on the movement area of an aerodrome shall have intensities, colours,				
Standard	fields of coverage and other characteristics such that they furnish the pilot of another aircraft or personnel on the ground with as much time as possible for interpretation and for subsequent manoeuvre necessary to avoid a collision. In the design of such lights, due account shall be taken of the conditions under which they may reasonably be expected to perform these functions.  *Note.— It is likely that lights will be viewed against a variety of backgrounds, such as typical city lighting, clear starry sky, moonlit water and daytime conditions of low background luminance. Furthermore, collision risk situations are most likely to arise in terminal control areas in which aircraft are manoeuvring in the intermediate and lower flight levels at closing speeds that are unlikely to exceed 900 km/h (500 kt).				
Chapter 6 Reference 6.4.2	6.4.2 Lights shall be installed in aeroplanes so as to minimize the possibility that they will adversely affect the satisfactory performance of the flight crews' duties.		Not Applicable		
Standard	Note.— In order to avoid the effects mentioned in 6.4.2, it will be necessary in some cases to provide means whereby the pilot can adjust the intensity of the flashing lights.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 6 Reference 6.5 Standard	6.5 Electromagnetic interference protection  Aeroplane electronic systems, particularly flight-critical and flight-essential systems, shall be protected against electromagnetic interference from both internal and external sources.		Not Applicable			
Chapter 6 Reference 6.6 Standard	6.6 Ice protection  If certification for flight in icing conditions is requested, the aeroplane shall be shown to be able to operate safely in icing conditions likely to be encountered in all anticipated operating environments.		Not Applicable			

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.1	CHAPTER 7. OPERATING LIMITATIONS AND INFORMATION		Not Applicable		
Standard	7.1 General  The operating limitations within which compliance with the Standards of this Annex is determined, together with any other information necessary to the safe operation of the aeroplane, shall be made available by means of a flight manual, markings and placards, and such other means as may effectively accomplish the purpose.				
Chapter 7 Reference 7.2.1 Standard	7.2.1 Limitations which might be exceeded in flight and which are defined quantitatively shall be expressed in suitable units. These limitations shall be corrected if necessary for errors in measurements so that the flight crew can, by reference to the instruments available to them, readily determine when the limitations are reached.		Not Applicable		
Chapter 7 Reference 7.2.2 Standard	7.2.2 Loading limitations  The loading limitations shall include all limiting masses, centre of gravity positions, mass distributions and floor loadings (see 1.2.2).		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7	7.2.3 Airspeed limitations		Not Applicable		
Reference					
7.2.3	The airspeed limitations shall include all speeds (see 3.5.2) that are limiting from the standpoint of structural integrity or flying qualities of the aeroplane, or from other considerations. These				
Standard	speeds shall be identified with respect to the appropriate aeroplane configurations and other pertinent factors.				
Chapter 7	7.2.4 Powerplant limitations		Not Applicable		
Reference	, i		T vot i ipproducto		
7.2.4	The powerplant limitations shall include all those established for the various powerplant components as installed in the aeroplane (see 5.3.1 and 5.3.5.4).				
Standard					
Chapter 7	7.2.5 Limitations on equipment and systems		Not Applicable		
Reference					
7.2.5	The limitations on equipment and systems shall include all those established for the various equipment and systems as installed in the aeroplane.				
Standard	•				
Chapter 7	7.2.6 Miscellaneous limitations		Not Applicable		
Reference			- Stripphonoic		
7.2.6	Miscellaneous limitations shall include any necessary limitations with respect to conditions found to be prejudicial to the safety of the aeroplane (see 1.2.1).				
Standard					

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Chapter 7	7.2.7 Flight crew limitations		Not Applicable			
Reference			Tiotrippiiouoio			
7.2.7	The flight crew limitations shall include the minimum number of flight crew personnel necessary to operate the aeroplane, having regard, among other things, to the accessibility to the					
Standard	appropriate crew members of all necessary controls and instruments and to the execution of the established emergency procedures.					
	Note.— The circumstances in which the flight crew shall include members in addition to the minimum flight crew are defined in Annex 6, Part I and Part II.					
Chapter 7	7.3 Operating information and procedures		Not Applicable			
Reference						
7.3.1	7.3.1 Types of eligible operations					
Standard	The particular types of operations for which the aeroplane has been shown to be eligible by virtue of compliance with the appropriate airworthiness requirements shall be listed.					

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## Annex 8, Amendment 106

### Report on entire Annex

	Report on entire Annex				
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7	7.3.2 Loading information		Not Applicable		
Reference					
7.3.2	The loading information shall include the empty mass of the aeroplane, together with a definition of the condition of the aeroplane at the time of weighing, the corresponding centre of				
Standard	gravity position, and the reference points and datum lines to which the centre of gravity limits are related.				
	Note.— Usually the empty mass excludes the mass of the crew and payload, the usable fuel supply and the drainable oil; it includes the mass of all fixed ballast, unusable fuel supply, undrainable oil, total quantity of engine coolant and total quantity of hydraulic fluid.				
Chapter 7	7.3.3 Operating procedures		Not Applicable		
Reference	7.5.5 Operating procedures		Not Applicable		
7.3.3	A description shall be given of normal and emergency operating procedures which are peculiar to the particular aeroplane and necessary for its safe operation. These shall				
Standard	include procedures to be followed in the event of failure of one or more engines.				
Chapter 7	7.3.4 Handling information		Not Applicable		
Reference			-FF		
7.3.4	Sufficient information shall be given on any significant or unusual features of the aeroplane characteristics. Those stalling speeds or minimum steady flight speeds required to be established by 2.4.2.3 shall be scheduled.				
Standard	established by 2.7.2.3 shall be selleduied.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7	7.4 Performance information		Not Applicable		
Reference			rotrippiicuoic		
7.4	The performance of the aeroplane shall be furnished in accordance with 2.2. There shall be included information regarding the various aeroplane configurations and powers or				
Standard	thrusts involved and the relevant speeds, together with information that would assist the flight crew in attaining the performance as furnished.				
Chapter 7	7.5 Flight manual		Not Applicable		
Reference			rotrippiicuoic		
7.5	A flight manual shall be made available. It shall identify clearly the specific aeroplane or series of aeroplanes to which it is related. The flight manual shall include at least the limitations,				
Standard	information and procedures specified in 7.2, 7.3, 7.4 and 7.6.1.				
Chapter 7	7.6 Markings and placards		Not Applicable		
Reference	7.0 Markings and placards		Not Applicable		
7.6.1	7.6.1 Markings and placards on instruments, equipment, controls, etc., shall include such limitations or information as necessary for the direct attention of the flight crew during				
Standard	flight.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 7 Reference 7.6.2 Standard	7.6.2 Markings and placards or instructions shall be provided to give any information that is essential to the ground crew in order to preclude the possibility of mistakes in ground servicing (towing, refuelling, etc.) that could pass unnoticed and that could jeopardize the safety of the aeroplane in subsequent flights.		Not Applicable		
Chapter 7 Reference 7.7.1 Standard	7.7 Continuing airworthiness — maintenance information  7.7.1 General  Information for use in developing procedures for maintaining the aeroplane in an airworthy condition shall be made available. The information shall include that described in 7.7.2, 7.7.3 and 7.7.4.		Not Applicable		
Chapter 7 Reference 7.7.2 Standard	7.7.2 Maintenance information  Maintenance information shall include a description of the aeroplane and recommended methods for the accomplishment of maintenance tasks. Such information shall include guidance on defect diagnosis.		Not Applicable		

	Report on entire Annex					
Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference	
Chapter 7 Reference	7.7.3 Maintenance programme information		Not Applicable			
7.7.3	Maintenance programme information shall include the maintenance tasks and the recommended intervals at which these tasks are to be performed.					
Standard	Note.— The development of initial maintenance programme information at the time of aircraft type certification is sometimes referred to as the Maintenance Review Board (MRB) process or the process of developing instructions for continued airworthiness.					
Chapter 7 Reference 7.7.4	7.7.4 Mandatory maintenance requirements resulting from the type design approval		Not Applicable			
7.7.4 Standard	Mandatory maintenance requirements that have been specified by the State of Design as part of the approval of the type design shall be identified as such and included in the maintenance information of 7.7.3.  Note.— Mandatory requirements identified as part of the type design approval are often referred to as Certification Maintenance Requirements (CMR) and/or airworthiness limitations.					

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## LFTH EDITION - NOVEMBER 2018 Annex 8, Amendment 106

### Report on entire Annex

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8 Reference 8.1	CHAPTER 8. CRASHWORTHINESS AND CABIN SAFETY		Not Applicable		
Standard	8.1 General  Crashworthiness shall be taken into account in the design of aeroplanes to improve the probability of occupant survival.				
Chapter 8	8.2 Design emergency landing loads		Not Applicable		
Reference			Tr		
8.2 Standard	Emergency landing (crash) loads shall be determined so that the interiors, furnishings, support structure and safety equipment can be designed to protect the occupants under emergency landing conditions. Items to be considered shall include:				
	a) dynamic effects;				
	b) restraint criteria for items that could cause a hazard;				
	c) deformation of the fuselage in the areas of emergency exits;				
	d) fuel cell integrity and position; and				
	e) integrity of electrical systems to avoid sources of ignition.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8	8.3 Cabin fire protection		Not Applicable		
Reference			PP		
8.3	The cabin shall be so designed as to provide fire protection to the occupants in the event of airborne systems failures or a				
Cton don'd	crash situation. Items to be considered shall include:				
Standard	a) flammability of cabin interior materials;				
	b) fire resistance and the generation of smoke and toxic fumes;				
	c) provision of safety features to allow for safe evacuation; and				
	d) fire detection and suppression equipment.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8	8.4 Evacuation		Not Applicable		
Reference	W. 21		1 tot / ipplicable		
8.4	The aeroplane shall be equipped with sufficient emergency exits to allow for cabin evacuation within an appropriate time				
Standard	period. Items to be considered, appropriate to the size of the aeroplane, shall include:				
	a) number of seats and seating configuration;				
	<ul><li>b) number, location and size of exits;</li><li>c) marking of exits and provision of instructions for use;</li></ul>				
	d) likely blockages of exits;				
	e) operation of exits; and				
	f) positioning and weight of evacuation equipment at exits, e.g. rafts.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 8	8.5 Lighting and marking		Not Applicable		
Reference			Tr		
8.5	Emergency lighting, if installed, shall have the following characteristics:				
Standard	a) independence from main electrical supply;				
	b) automatic activation upon loss of normal power/impact;				
	c) visual indication of emergency exits;				
	d) illumination both inside and outside the aeroplane during evacuation; and				
	e) no additional hazards in the event of fuel spillage, emergency landings and minor crash events.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.1	CHAPTER 9. OPERATING ENVIRONMENT AND HUMAN FACTORS		Not Applicable		
Standard	9.1 General  The aeroplane shall be designed to allow safe operation within the performance limitations of its passengers and those who operate, maintain and service it.  Note.— The human/machine interface is often the weak link in an operating environment; so, it is necessary to ensure that the aeroplane is capable of being controlled at all phases of the flight (including any degradation due to failures) and that neither the crew nor passengers are harmed by the environment in which they have been placed for the duration of the flight.				
Chapter 9 Reference 9.2.1 Standard	9.2.1 The aeroplane shall be designed in such a way as to allow safe and efficient control by the flight crew. The design shall allow for variations in flight crew skill and physiology commensurate with flight crew licensing limits. Account shall be taken of the different expected operating conditions of the aeroplane in its environment, including operations degraded by failures.		Not Applicable		

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9 Reference 9.2.2 Standard	9.2.2 The workload imposed on the flight crew by the design of the aeroplane shall be reasonable at all stages of flight. Particular consideration shall be given to critical stages of flight and critical events which may reasonably be expected to occur during the service life of the aeroplane, such as a contained engine failure or windshear encounter.  Note.— Workload can be affected by both cognitive and physiological factors.		Not Applicable		
Chapter 9	9.3 Ergonomics		Not Applicable		
Reference	Ü		Tr		
9.3	During design of the aeroplane, account shall be taken of ergonomic factors including:				
Standard	a) ease of use and prevention of inadvertent misuse;				
	b) accessibility;				
	c) flight crew working environment;				
	d) cockpit standardization; and				
	e) maintainability.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 9	9.4 Operating environmental factors		Not Applicable		
Reference					
9.4	The design of the aeroplane shall take into consideration the flight crew operating environment including:				
Standard	effect of aeromedical factors such as level of oxygen, temperature, humidity, noise and vibration;				
	b) effect of physical forces during normal flight;				
	c) effect of prolonged operation at high altitude; and				
	d) physical comfort.				

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.1.1 Standard	PART VII. PROPELLERS  CHAPTER 1. GENERAL	CAR Part 21, Appendix C.	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.
	1.1.1 The Standards of this part are applicable to all propellers, as required in Parts IIIB and V. The Standards of this part are applicable to a propeller at the time of submission of an application to the appropriate national authority for a type approval.  Note.— The following Standards do not include quantitative specifications comparable to those found in national airworthiness codes. In accordance with 1.2.1 of Part II, these Standards are to be supplemented by requirements established, adopted or accepted by Contracting States.				
Chapter 1 Reference 1.1.2 Standard	1.1.2 The level of airworthiness defined by the appropriate parts of the comprehensive and detailed national code for the propellers designated in 1.1.1 shall be at least substantially equivalent to the overall level intended by the broad Standards of this part.	7 11	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.2 Standard	1.2 Declared ratings, conditions and limitations  The power ratings and all operating conditions and limitations which are intended to govern the operation of the propeller shall be declared.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.3.1 Standard	1.3 Continuing airworthiness — maintenance information  1.3.1 General  Information for use in developing procedures for maintaining the propeller in an airworthy condition shall be made available. The information shall include that described in 1.3.2, 1.3.3 and 1.3.4.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.3.2 Standard	1.3.2 Maintenance information  Maintenance information shall include a description of the propeller and recommended methods for the accomplishment of maintenance tasks. Such information shall include guidance on defect diagnosis.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 1 Reference 1.3.3 Standard	1.3.3 Maintenance programme information  Maintenance programme information shall include the maintenance tasks and the recommended intervals at which these tasks are to be performed.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 1 Reference 1.3.4 Standard	1.3.4 Mandatory maintenance requirements resulting from the type design approval  Mandatory maintenance requirements that have been specified by the State of Design as part of the approval of the type design shall be identified as such and included in the maintenance information of 1.3.3.	7	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.1 Standard	CHAPTER 2. DESIGN AND CONSTRUCTION  2.1 Functioning  The propeller assembly shall be designed and constructed so as to function reliably within its operating limitations under its anticipated operating conditions when installed in accordance with Parts IIIB and V of this Annex and shown to be not hazardous.	7	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.2 Standard	2.2 Failure analysis  A safety assessment of the propeller shall be conducted to ensure that it functions safely throughout the full range of operating conditions. A summary shall be made of those failures which could result in hazardous propeller effects. If the primary failure of single elements (for example, blades) is likely to result in hazardous propeller effects, reliance shall be placed on meeting prescribed integrity requirements.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.3 Standard	2.3 Materials and manufacturing methods  The selection of materials and the manufacturing methods and processes shall account for the operational environment of the propeller expected in service. The materials and manufacturing methods and processes used in the construction of the propeller shall result in known and reproducible structural behaviour.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 2 Reference 2.4.1 Standard	2.4 Pitch control and indication  2.4.1 No loss of normal propeller pitch control shall cause a hazardous overspeeding under anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 2 Reference 2.4.2 Standard	2.4.2 No single failure or malfunction in the propeller control system during normal or emergency operation shall result in unintended travel of the propeller blades to a position below the in-flight low-pitch position. Failure of structural elements need not be considered if the occurrence of such a failure is shown to be extremely remote.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.
Chapter 3 Reference 3.1 Standard	CHAPTER 3. TESTS AND INSPECTIONS  3.1 Blade retention test  Propeller assemblies with detachable blades shall be subjected to a centrifugal load with sufficient margin to ensure that the hub and blade retention system will operate satisfactorily and reliably under the expected loads in service under all anticipated operating conditions.	CAR Part 21, Appendix C.	No Difference		Compliance with Part VII is by incorporation by reference in CAR Part 21 of appropriate FARs.

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Annex Reference	AIRWORTHINESS OF AIRCRAFT  Standard or Recommended Practice	State Legislation, Regulation or Document Reference	Level of implementation of SARP's	Text of the difference to be notified to ICAO	Comments including the reason for the difference
Chapter 3	3.2 Operational and endurance tests	CAR Part 21, Appendix C.	No Difference		Compliance with Part VII is
Reference	•	, <sub>FF</sub>			by incorporation by
3.2	The propeller shall satisfactorily complete such tests as are necessary to ensure that it will operate satisfactorily and				reference in CAR Part 21 of appropriate FARs.
Standard	reliably within the declared ratings, conditions and limitations. The tests shall include at least the following:				
	a) <i>Function</i> . Tests shall be conducted to demonstrate proper and reliable functioning of the pitch control system.				
	b) <i>Endurance</i> . Tests of sufficient duration shall be conducted at such powers, speeds and other operating conditions as are necessary to demonstrate reliability and durability of the propeller.				
	c) Operating environment. Except for fixed pitch wood propellers, it shall be demonstrated by tests or analysis based on tests or experience on similar designs, that the propeller is capable of withstanding the likely impact of a bird or a lightning strike without causing a hazardous propeller effect.				

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