

FAA FAR Part 21, Subpart F - SO DIFFERENT TO CASR PART 21, SUBPART F

Production Under a Type Certificate

CASR Part 21, Subpart F is about Production under a type approval only. Major FAR change requires TSO holder to have organisation & QS

CASR Part 21, Subpart F was made in 1998 but the FAA modernised this Subpart in 2009 to harmonise with ICAO & FAA.

- Change numbering to match FAR Part 21, Subpart F

FAR	CASR	COMMENTS
Subpart 21.F Production under type certificate	Subpart 21.F Production under type certificate only	
<p>§21.121 Applicability. This subpart prescribes rules for production under a type certificate.</p>	<p>21.121 Applicability (1) This Subpart prescribes rules for the production of an aircraft, aircraft engine or propeller under a type certificate only. (2) For this Subpart, a person manufactures an aircraft, aircraft engine or propeller under a type certificate only if the person is the holder, or licensee, of a type certificate, but not a production certificate, for the aircraft, aircraft engine or propeller. <i>Source</i> FARs section 21.121 modified. <i>Note</i> Subpart 21.G deals with production certificates.</p>	<p>Delete Adopt FAR</p>
<p>§21.122 Location of or change to manufacturing facilities. (a) A type certificate holder may utilize manufacturing facilities located outside of the United States if the FAA finds no undue burden in administering the applicable requirements of Title 49 U.S.C. and this subchapter. (b) The type certificate holder must obtain FAA approval before making any changes to the location of any of its manufacturing facilities. (c) The type certificate holder must immediately notify the FAA, in writing, of any change to the manufacturing facilities that may affect the inspection, conformity, or airworthiness of its product or article.</p>		<p>Relevant Adopt FAR</p>
<p>§21.123 Production under type certificate. Each manufacturer of a product being manufactured under a type certificate must— (a) <u>Maintain at the place of manufacture all information and data specified in §§21.31 and 21.41;</u> (b) Make each product and article thereof available for inspection by the FAA; (c) <u>Maintain records of the completion of all inspections and tests required by §§21.127, 21.128, and 21.129 for at least 5 years for the products and articles thereof manufactured under the approval and at least 10 years for critical components identified under §45.15(c) of this chapter;</u></p>	<p>21.123 Production under type certificate (1) Each manufacturer of an aircraft, aircraft engine or propeller being manufactured under a type certificate only must: (a) make each aircraft, aircraft engine or propeller available for inspection by CASA; and (b) maintain at the place of manufacture the technical data and drawings necessary for CASA to determine whether the aircraft, aircraft engine or propeller and its parts conform to the type design; and (c) establish and maintain an approved production inspection system that: (i) meets the requirements of subregulation 21.125 (2); and</p>	<p>Delete Conceptual changes Adopt FAR</p>

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<p>(d) Allow the FAA to make any inspection or test, including any inspection or test at a supplier facility, necessary to determine compliance with this subchapter;</p> <p>(e) Mark the product in accordance with part 45 of this chapter, including any critical parts;</p> <p>(f) Identify any portion of that product (e.g., sub-assemblies, component parts, or replacement articles) that leave the manufacturer's facility as FAA approved with the manufacturer's part number and name, trademark, symbol, or other FAA-approved manufacturer's identification; and</p> <p>(g) Except as otherwise authorized by the FAA, obtain a production certificate for that product in accordance with subpart G of this part within 6 months after the date of issuance of the type certificate.</p>	<p>(ii) ensures that each aircraft, aircraft engine or propeller manufactured under the type certificate more than 6 months after it was issued conforms to the type design and is in a condition for safe operation; and</p> <p>(d) upon the establishment of the approved production inspection system — submit to CASA a manual that describes the system and the means for meeting the requirements of subregulation 21.125 (2).</p> <p>Penalty: 25 penalty units.</p> <p>(1A) An offence against subregulation (1) is an offence of strict liability.</p> <p><i>Note For strict liability, see section 6.1 of the Criminal Code.</i></p> <p>(2) Each manufacturer may apply to CASA for an extension of the period of 6 months mentioned in subparagraph (1) (c) (ii).</p> <p>(3) CASA may extend the period in a particular case if unusual or extenuating circumstances prevent the manufacturer from establishing an approved production inspection system within 6 months after the issue of the type certificate.</p> <p><i>Source FARs section 21.123 modified.</i></p>	
<p>§21.125 [Reserved]</p>	<p>21.125 Production inspection system: Materials Review Board</p> <p>(1) Each manufacturer required to establish a production inspection system under paragraph 21.123 (1) (c) must:</p> <p>(a) establish a Materials Review Board (to include representatives from the manufacturer's inspection and engineering departments) and materials review procedures; and</p> <p>(b) maintain complete records of Materials Review Board action for at least two years after the action was taken.</p> <p>Penalty: 50 penalty units.</p> <p>(1A) An offence against subregulation (1) is an offence of strict liability.</p> <p><i>Note For strict liability, see section 6.1 of the Criminal Code.</i></p> <p>(2) The production inspection system must provide for the following:</p> <p>(a) ensuring that incoming materials, and bought or subcontracted parts, used in the finished aircraft, aircraft engine or propeller comply with the specifications in the type design data, or are suitable equivalents;</p> <p>(b) properly identifying incoming materials, and bought or subcontracted parts, if their physical or chemical properties cannot be readily and accurately determined;</p> <p>(c) suitable storage and adequate protection of materials subject to damage and deterioration;</p>	<p>Delete</p> <p>No longer relevant</p> <p>All manufacturers are required to have QS. MRBs have been replaced by manufacturing quality systems.</p>

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	<p>(d) carrying out processes affecting the quality and safety of the finished aircraft, aircraft engine or propeller in accordance with acceptable industry or Australian specifications;</p> <p>(e) inspecting parts and components during production for conformity with the type design data at points in the process where accurate determinations can be made;</p> <p>(f) ensuring that current design drawings are readily available to manufacturing and inspection personnel, and used when necessary;</p> <p>(g) ensuring that design changes, including material substitutions, are controlled before being incorporated in a finished aircraft, aircraft engine or propeller;</p> <p>(h) segregating, identifying, marking and disposing of rejected materials and parts in a manner that precludes installation in the finished aircraft, aircraft engine or propeller;</p> <p>(i) a system for processing through the Materials Review Board any materials and parts that are withheld because of departures from design data or specifications, and that are to be considered for installation in a finished aircraft, aircraft engine or propeller;</p> <p>(j) a system for identifying and reinspecting materials and parts determined by the Materials Review Board to be serviceable if rework or repair is necessary;</p> <p>(k) maintaining inspection records, identified with the finished aircraft, aircraft engine or propeller where practicable, and retaining them for at least 2 years.</p> <p><i>Source FARs section 21.125 modified.</i></p>	
<p>§21.127 Tests: aircraft.</p> <p>(a) Each person manufacturing aircraft under a type certificate must establish an approved production flight test procedure and flight check-off form, and in accordance with that form, flight test each aircraft produced.</p> <p>(b) Each production flight test procedure must include the following:</p> <p>(1) An operational check of the trim, controllability, or other flight characteristics to establish that the production aircraft has the same range and degree of control as the prototype aircraft.</p> <p>(2) An operational check of each part or system operated by the crew while in flight to establish that, during flight, instrument readings are within normal range.</p> <p>(3) A determination that all instruments are properly marked, and that all placards and required flight manuals are installed after flight test.</p>	<p>21.127 Tests: aircraft</p> <p>(1) Each person manufacturing aircraft under a type certificate <u>only</u> must establish an approved production flight test procedure and flight check-off form, and in accordance with that form, flight test each aircraft produced.</p> <p>Penalty: 25 penalty units.</p> <p>(1A) An offence against subregulation (1) is an offence of strict liability.</p> <p><i>Note For strict liability, see section 6.1 of the <i>Criminal Code</i>.</i></p> <p>(2) Each production flight test procedure must include the following:</p> <p>(a) an operational check of the trim, controllability, or other flight characteristics to establish that the production aircraft has the same range and degree of control as the prototype aircraft;</p> <p>(b) an operational check of each part or system operated by the crew while in flight to establish that, during flight, instrument readings are within normal range;</p>	<p>Basically similar</p>

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<p>(4) A check of the operational characteristics of the aircraft on the ground.</p> <p>(5) A check on any other items peculiar to the aircraft being tested that can best be done during the ground or flight operation of the aircraft.</p>	<p>(c) a determination that all instruments are properly marked, and that all placards and required flight manuals are installed after flight test;</p> <p>(d) a check of the operational characteristics of the aircraft on the ground;</p> <p>(e) a check on any other items peculiar to the aircraft being tested that can best be done during the ground or flight operation of the aircraft.</p> <p><i>Source FARs section 21.127 modified.</i></p>	
<p>§21.128 Tests: aircraft engines.</p> <p>(a) Each person manufacturing aircraft engines under a type certificate must subject each engine (except rocket engines for which the manufacturer must establish a sampling technique) to an acceptable test run that includes the following:</p> <p>(1) Break-in runs that include a determination of fuel and oil consumption and a determination of power characteristics at rated maximum continuous power or thrust and, if applicable, at rated takeoff power or thrust.</p> <p>(2) At least five hours of operation at rated maximum continuous power or thrust. For engines having a rated takeoff power or thrust higher than rated maximum continuous power or thrust, the five-hour run must include 30 minutes at rated takeoff power or thrust.</p> <p>(b) The test runs required by paragraph (a) of this section may be made with the engine appropriately mounted and using current types of power and thrust measuring equipment.</p>	<p>21.128 Tests: aircraft engines</p> <p>(1) Each person manufacturing aircraft engines <u>that are not rocket engines</u> under a type certificate only must subject each engine to an acceptable test run that includes the following:</p> <p>(a) break-in runs that include a determination of fuel and oil consumption and a determination of power characteristics at rated maximum continuous power or thrust and, if applicable, at rated take-off power or thrust;</p> <p>(b) at least five hours of operation at rated maximum continuous power or thrust, including, for engines having a rated take-off power or thrust higher than rated maximum continuous power or thrust, 30 minutes at rated take-off power or thrust.</p> <p>Penalty: 25 penalty units.</p> <p>(2) The test runs required by subregulation (1) may be made with the engine appropriately mounted and using current types of power and thrust measuring equipment.</p> <p>(3) A person manufacturing rocket engines under a type certificate only must establish a sampling technique for testing the engines.</p> <p>Penalty: 25 penalty units.</p> <p>(4) An offence against subregulation (1) or (3) is an offence of strict liability.</p> <p><i>Note For strict liability, see section 6.1 of the <i>Criminal Code</i>.</i></p> <p><i>Source FARs section 21.128 modified.</i></p>	<p>Basically the same</p>
<p>§21.129 Tests: propellers.</p> <p>Each person manufacturing propellers under a type certificate must give each variable pitch propeller an acceptable functional test to determine if it operates properly throughout the normal range of operation.</p>	<p>21.129 Tests: variable pitch propellers</p> <p>(1) Each person manufacturing variable pitch propellers under a type certificate only must give each propeller an acceptable functional test to determine if it operates properly throughout the normal range of operation.</p> <p>Penalty: 25 penalty units.</p> <p>(2) An offence against subregulation (1) is an offence of strict liability.</p> <p><i>Note For strict liability, see section 6.1 of the <i>Criminal Code</i>.</i></p> <p><i>Source FARs section 21.129 modified.</i></p>	<p>Basically the same</p>

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<p>§21.130 Statement of conformity. Each holder or licensee of a type certificate who manufactures a product under this subpart must provide, in a form and manner acceptable to the FAA, a statement that the product for which the type certificate has been issued conforms to its type certificate and is in a condition for safe operation.</p>	<p>21.130 Statement of conformity (1) Each holder or licensee of a type certificate for a type of aircraft, aircraft engine or propeller must give CASA a statement of conformity, in a form acceptable to CASA, for each aircraft, aircraft engine or propeller manufactured under the type certificate only: (a) when the holder or licensee applies for the original issue of an aircraft certificate of airworthiness or an aircraft engine or propeller authorised release certificate for the aircraft, aircraft engine or propeller; or (b) if the holder or licensee transfers the ownership of the aircraft, aircraft engine or propeller without applying for an authorised release certificate for it — when the ownership of the aircraft, aircraft engine or propeller is transferred. (2) The statement of conformity must be signed by a person who holds a responsible position in the manufacturing organisation and has been authorised by the manufacturer to sign the statement, and must include: (a) for each aircraft, aircraft engine or propeller, a statement that it conforms to its type certificate and is in a condition for safe operation; and (b) for each aircraft, a statement that the aircraft has been flight checked; and (c) for each aircraft engine or variable pitch propeller, a statement that the engine or propeller has been subjected by the manufacturer to a final operational check. (3) However, in the case of an aircraft, aircraft engine or propeller manufactured for the Defence Force, or for an armed force of Canada, the United Kingdom or the United States of America, a statement of conformity is not required if the aircraft, aircraft engine or propeller has been accepted by the relevant force. <i>Source FARs section 21.130 modified.</i></p>	<p>Delete No longer relevant Adopt FAR</p>
	<p>21.130A Records to be kept by manufacturer (1) A person who manufactures an aircraft, aircraft engine or propeller under a type certificate only must keep, at the place of manufacture, the following current records for the aircraft, aircraft engine or propeller: (a) a technical data file that includes the type design drawings, specifications, reports on tests prescribed by this Part, and the original type inspection report and any amendments to that report;</p>	<p>Delete Refer FAR 21.123 21.31 & 41 detail what is required to be kept.</p>

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	<p>(b) the information required to prepare the statement of conformity mentioned in regulation 21.130;</p> <p>(c) a complete inspection record, the serial number, and data covering the processes and tests to which materials and parts are subjected;</p> <p>(d) a record of service difficulties reported to the manufacturer.</p> <p>Penalty: 50 penalty units.</p> <p>(2) The records mentioned in paragraphs (1) (a) and (b) must be kept for the period in which aircraft, aircraft engines or propellers are manufactured by the person under the type certificate.</p> <p>Penalty: 50 penalty units.</p> <p>(3) The records mentioned in paragraphs (1) (c) and (d) must be kept for 2 years after the aircraft, aircraft engine or propeller to which the records relate was manufactured.</p> <p>Penalty: 50 penalty units.</p> <p>(4) On CASA's request, the records must be made available for examination by CASA.</p> <p>Penalty: 50 penalty units.</p> <p>(5) If the manufacturer stops manufacturing aircraft, aircraft engines or propellers under the type certificate, and does not continue manufacturing under a production certificate, the manufacturer must send the records to CASA within 30 days.</p> <p>Penalty: 50 penalty units.</p> <p>(6) An offence against subregulation (1), (2), (3), (4) or (5) is an offence of strict liability.</p> <p><i>Note For strict liability, see section 6.1 of the <i>Criminal Code</i>.</i></p> <p><i>Source FARs section 21.293 modified.</i></p>	