WELLINGTON NEW ZEALAND

PURSUANT to Section 28 of the Civil Aviation Act 1990

I, MAURICE WILLIAMSON, Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This 29 day of March 1999

by **MAURICE WILLIAMSON**

Minister of Transport

Civil Aviation Rules

Part 125

Air Operations - Medium Aeroplanes

Docket 98/CAR/1303

Civil Aviation Rules

Part 125

Air Operations - Medium Aeroplanes

RULE OBJECTIVE, EXTENT OF CONSULTATION AND COMMENCEMENT

The objective of Part 125 is to bring into force a new Part for the operation of medium sized aeroplanes, resulting from amendment 6 to Part 135, the Part 135 Review, and consequential amendments to Parts 1, 12, 19, 61, 66, 93, 119, and 121 of the Civil Aviation Rules. The operating requirements for 10 to 30 seat aeroplanes of specified weight is moved from Part 135 to Part 125 and the rule content is amended to relate to these aeroplanes. In addition, changes relating to the definitions of air operation and commercial transport operation have been included. Consultation regarding Part 125 was conducted as part of the consultation process for the amendment to Part 135.

Part 125 comes into force 30 April 1999.

List of Rules

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Subpart A — General

125.1 Purpose

(a) This Part prescribes rules governing air transport and commercial transport operations using aeroplanes having a seating configuration of 10 to 30 seats, excluding any required crew member seat, or a payload capacity of 3410 kg or less and a MCTOW of greater than 5700 kg.

(b) If either the seat numbers or payload capacity of the aeroplane falls into the applicability for Part 121, then the operation shall be conducted under Part 121.

125.3 Definitions

In this Part—

Air operation means an air transport operation or a commercial transport operation using an aeroplane having a seating configuration of 10 to 30 seats, excluding any required crew member seat, or a payload capacity of 3410 kg or less and a MCTOW of greater than 5700 kg:

Air operator certificate means an airline air operator certificate:

Exposition, unless used with reference to another source, means a record of the information required by 119.81 or 119.125:

Holder of an air operator certificate means the holder of an air operator certificate issued under Part 119 that authorises the holder to conduct air operations:

Net take-off flight path, take-off flight path, take-off distance, and take-off run have the same meaning as prescribed in the rules under which the aeroplane was certificated:

Threshold means that point where a 1:20 obstacle-free approach surface intersects the runway surface.

125.5 Laws, regulations, and procedures

Each holder of an air operator certificate shall ensure that all persons employed, engaged, or contracted by the holder of an air operator certificate

are familiar with the appropriate sections of the Act, Civil Aviation Rules, and procedures specified in the certificate holder's exposition.

125.7 Procedure compliance

Each person performing an air operation shall conform with the applicable procedures specified in the exposition of the holder of the air operator certificate that authorises the operation.

Subpart B — Flight Operations

125.51 Reserved

125.53 Aeroplane airworthiness

Each holder of an air operator certificate shall ensure that each aeroplane it uses in conducting an air operation has a current standard category airworthiness certificate.

125.55 Common language

Each holder of an air operator certificate shall ensure that—

(1) all crew members can communicate in a common language with at least one flight crew member being able to communicate in the English language; and

(2) all operations personnel are able to understand the language in which the applicable parts of the certificate holder's exposition are written.

125.57 Flight preparation

(a) Each holder of an air operator certificate shall ensure that a flight plan is prepared for each air operation and, if not prepared by the pilot-in-command, the pilot-in-command is advised of its contents before the intended operation.

(b) The holder of an air operator certificate shall ensure for each air operation that information is available to the pilot-in-command to complete the preparation for the intended operation.

(c) Except as provided in paragraph (d), the holder of an air operator certificate shall ensure that a flight plan is submitted to an appropriate ATS prior to each air operation.

(d) Notwithstanding 91.409(a)(1) and 91.307(a), the holder of an air operator certificate may, instead of the pilot-in-command, submit the flight plan to an appropriate ATS.

(e) Under VFR conditions a flight plan is not required for non-stop flights departing from, remaining within 25 nm of, and returning to, the same aerodrome.

125.59 Emergency and survival equipment information

(a) Each holder of an air operator certificate shall have available, for immediate communication to rescue co-ordination centres, information on the emergency and survival equipment carried on board each of its aeroplanes.

(b) For air operations performed in excess of 50 nm from shore the information required by paragraph (a) shall include—

(1) the number, colour, and type of life rafts; and

(2) whether pyrotechnics are carried; and

(3) details of emergency medical supplies and water supplies; and

(4) the type and operating frequencies of any emergency portable radio equipment.

125.61 Fuel

(a) Each holder of an air operator certificate shall establish a fuel policy for the purpose of flight planning, and en-route replanning, to ensure that each aeroplane carries sufficient fuel for the planned flight, including reserves to cover deviations from the planned flight.

(b) The fuel policy shall ensure that the planning of fuel requirements is based upon—

(1) procedures, tables, and graphs, that are contained in, or derived from, the manufacturer's manuals and that conform to the parameters contained in the aeroplane's type certificate; and

(2) the operating conditions under which the planned flight is to be conducted, including—

(i) normal aeroplane fuel consumption data; and

(ii) anticipated weights; and

(iii) expected meteorological conditions; and

(iv) ATS requirements and restrictions; and

(v) the geographic location of the destination aerodrome; and

(vi) the effect on fuel consumption of identified contingencies.

(c) Except as provided in paragraph (d) the holder of an air operator certificate shall ensure that the calculation of usable fuel required for a flight takes into account the following factors—

(1) taxi fuel; and

(2) trip fuel; and

(3) reserve fuel, consisting of—

(i) contingency fuel; and

(ii) alternate fuel, if an alternate aerodrome is required; and

(iii) final reserve fuel; and

(iv) additional fuel, if required by the type of operation.

(d) The holder of an air operator certificate may vary the factors required to be taken into account in paragraph (c) to accommodate en-route re-planning procedures if the variation is provided for in the certificate holder's exposition.

125.63 Cockpit check list

(a) Each holder of an air operator certificate shall, for each air operation, ensure that flight crew members have available for use a cockpit checklist covering the procedures, including emergency procedures, for the operation.

(b) Each person performing an air operation shall use a cockpit checklist covering the procedures, including emergency procedures, for the operation of the aeroplane in accordance with the aeroplane flight manual.

125.65 Passenger safety

Each person performing an air operation shall ensure that—

(1) passengers are seated where, in the event of an emergency evacuation, they will not hinder evacuation from the aeroplane; and

(2) any passenger who appears to be under the influence of alcohol or drugs or exhibits behavioural characteristics, to the extent where the safety of the aeroplane or its occupants is likely to be endangered, is refused embarkation or, where appropriate, removed from the aeroplane; and

(3) disabled passengers are appropriately cared for, including allocation of appropriate seating positions and handling assistance in the event of an emergency; and

(4) escorted passengers do not constitute a safety hazard to other passengers or to the aeroplane, and that prior arrangements for their carriage have been made in accordance with procedures in the certificate holder's exposition; and

(5) the pilot-in-command is notified when a disabled or escorted person is to be carried on board the aeroplane.

125.67 Flight compartment admission

(a) Each person performing an air operation shall ensure that no person, other than the flight crew members assigned to the flight, is admitted to, or carried in, the flight compartment, or occupies a pilot seat, unless that person is permitted by the pilot-in-command, and is—

(1) a crew member; or

(2) an authorised representative of the Director; or

(3) permitted by the holder of the air operator certificate in accordance with procedures specified in the certificate holder's exposition.

(b) Each person performing an air operation shall ensure that all persons admitted to the flight compartment or occupying a pilot seat are familiarised with the appropriate safety procedures specified in the certificate holder's exposition.

125.69 Manipulation of controls

(a) Except as provided in paragraph (b) no person shall manipulate the controls of an aeroplane performing an air operation.

(b) Each holder of an air operator certificate shall take reasonable care to ensure that no person manipulates the flight controls of its aeroplanes performing an air operation, unless the person is—

(1) a flight crew member; or

(2) an authorised representative of the Director who—

(i) has the permission of the certificate holder and the pilot-in-command; and

(ii) is performing a required duty.

125.71 Flight recorder requirements

(a) Each flight crew member shall ensure that, when a **cockpit-voice recorder** is required by 125.367—

(1) it is operated continuously from the start of the checklist commenced before engine start until the completion of the final checklist at the termination of flight; and

(2) if the aeroplane is equipped to record the uninterrupted audio signals received from a boom or a mask microphone, boom microphones are used below 10 000 feet altitude; and

(3) if an erasure feature is used in the cockpit-voice recorder, only information recorded more than 30 minutes earlier than the last record is erased or otherwise obliterated.

(b) Each flight crew member shall ensure that, when a **flight data recorder** is required by 125.369—

(1) it is operated continuously from the instant the aeroplane begins the take-off until it has completed the landing; and

(2) all recorded data is kept until the aeroplane has been operated for at least 25 hours after each operating cycle; and

(3) no more than 1 hour of recorded data is erased for the purpose of testing the flight recorder or the flight recorder system; and

(4) any erasure made in accordance with paragraph (b)(3) is—

(i) of the oldest recorded data accumulated at the time of testing; and

(ii) recorded in the appropriate maintenance documentation.

125.73 Refuelling and defuelling operations

(a) Each holder of an air operator certificate shall ensure that no aeroplane is refuelled or defuelled with Class 3(a) fuel when passengers are embarking, on board, or disembarking the aeroplane, or when one or more propulsion engines are running.

(b) Each person performing an air operation may permit an aeroplane to be refuelled or defuelled with Class 3(b) fuel when passengers are embarking, on board, or disembarking the aeroplane, provided the person ensures that safety and aeroplane evacuation precautions are taken in accordance with procedures specified in the certificate holder's exposition.

(c) Each person performing an air operation may permit an aeroplane to be refuelled or defuelled an aeroplane with Class 3(b) fuel with one or more propulsion engines running, provided that—

(1) all passengers are disembarked under supervision and clear of the immediate area prior to refuelling or defuelling commencing; and

(2) the pilot-in-command is responsible for all aspects of the refuelling or defuelling operation.

(d) Each holder of an air operator certificate shall take reasonable care to ensure that refuelling or defuelling does not take place where undue risk or hazard exists for any third party.

125.75 Fuel spillage

Each person performing an air operation shall ensure that, where fuel is spilled onto an impermeable surface while fuelling an aeroplane and that fuel is likely to endanger persons or property—

(1) refuelling or defuelling is stopped; and

(2) immediate action is taken to cover the fuel with sand, sawdust, dry earth, or an agent such as foam or dry chemical extinguisher powder, to reduce the fire hazard; and

(3) the aeroplane is then moved clear of the contaminated area before any engine is started.

125.77 Use of aerodromes

(a) Each holder of an air operator certificate shall ensure that any aerodrome to be used in its operations has physical characteristics, obstacle limitation surfaces, and visual aids that meet the requirements for—

(1) the characteristics of the aeroplane being used; and

(2) the lowest meteorological minima to be used.

(b) Each holder of an air operator certificate shall, where its aeroplanes use an aerodrome not promulgated in the NZAIP, maintain a register containing—

(1) the aerodrome data; and

(2) procedures for ensuring that the condition of the aerodrome is safe for that operation; and

(3) procedures for ensuring that the condition of any required equipment, including safety equipment, is safe for that operation; and

(4) any limitations on the use of the aerodrome.

(c) Each holder of an air operator certificate shall ensure that any aeroplane at or below 5700 kg MCTOW operating VFR by day does not use any place for the purpose of landing or taking-off unless—

(1) the width of the runway used—

(i) is at least twice the outer main gear span in width; and

(ii) has a surface without irregularities and of sufficient strength for take-off and landing for the aeroplane being used; and

(2) the width of the runway strip surrounding the runway being used is at least two and a half times the wing span of the aeroplane, or 30 m, whichever is greater.

(d) Each holder of an air operator certificate shall ensure that each aeroplane it operates, that is not operating in accordance with paragraph (c), does not use any place for the purpose of landing or taking-off unless—

(1) the aerodrome reference code of the aeroplane being used is determined by reference to Table 1 of Appendix C; and

(2) the runway width is at least that width determined by reference to the aeroplane code number in Table 2 of Appendix C; and

(3) the minimum runway strip width surrounding the runway used is determined by reference to Table 3 of Appendix C.

(e) Notwithstanding paragraphs (c) and (d), the holder of an air operator certificate may use a lesser minimum runway width than that prescribed in paragraph (c) or (d) for an aeroplane type if—

(1) a lesser minimum runway width determined by certificated flight testing is prescribed in the aeroplane's flight manual; or

(2) a lesser minimum runway width is acceptable to the Director; or

(3) a lesser minimum runway width was prescribed for the aeroplane in the certificate holder's air service certificate, issued under regulation 136 of the Civil Aviation Regulations 1953, before 6 January 1993.

125.79 Reserved

125.81 Operations of single-engine aeroplanes – IFR

No person shall perform an air operation carrying passengers with a single-engine aeroplane under IFR.

125.83 Restriction or suspension of operations

Each holder of an air operator certificate shall, on becoming aware of any condition that is a hazard to safe operations, restrict or suspend operations as necessary until the hazard is removed.

125.85 Minimum height for VFR flights

Part 91.311(c) shall not apply to a pilot-in-command performing air operations under this Part.

125.87 Flights over water

Each person performing an air operation over water—

(1) to a point no more than 100 nm beyond gliding distance from shore shall file a flight plan with a suitable ATS unit; and

(2) beyond 100 nm from shore shall conduct the flight under IFR.

125.89 Reserved

125.91 Emergency situation action plans

(a) Each holder of an air operator certificate shall ensure action plans are developed for handling in-air and on-ground emergency situations and minimising risk of injury to persons.

(b) The certificate holder's emergency situation action plan shall be based upon data including but not restricted to—

(1) type and length of routes over which operations are carried out; and

(2) aerodrome ground facilities; and

(3) local emergency services; and

(4) ATC facilities; and

(5) type, seating configuration, and payload of the aeroplane likely to be involved.

(c) The certificate holder's in-air emergency plan shall include the following—

(1) if management personnel become aware of an emergency situation arising on an aeroplane during flight that requires immediate decision and action, procedures to be followed by those personnel to ensure that—

(i) the pilot-in-command is advised of the emergency; and

(ii) the decision of the pilot-in-command is ascertained; and

(iii) the decision is recorded; and

(2) if management personnel are unable to communicate with the pilot-in-command in accordance with paragraph (c)(1), procedures to be followed by those personnel to ensure that—

(i) an emergency is declared; and

(ii) any action considered necessary under the circumstances is taken.

(d) Each holder of an air operator certificate shall ensure appropriate staff are trained and competent to perform their duties during emergencies in accordance with the emergency situation action plan.

Subpart C — Operating Limitations and Weather Requirements

125.151 Purpose

This Subpart prescribes the rules governing VFR and IFR operations, and associated weather requirements.

125.153 Meteorological information

(a) Each person performing an air operation shall plan, perform, and control flights using meteorological information provided for aviation purposes by the holder of an aviation meteorological service organisation certificate issued under Part 174.

(b) A pilot-in-command may, for each flight that originates and terminates within New Zealand, use a basic weather report that is provided in accordance with 174.6 to perform an approach and landing.

125.155 Meteorological conditions – VFR flight

(a) Each person performing an air operation shall ensure a VFR flight is not commenced unless current meteorological reports, or a combination of current reports and forecasts, indicate VFR minima prescribed in Part 91 and in paragraph (b) can be complied with along the route, or that part of the route to be flown under VFR.

(b) A pilot-in-command performing a VFR air operation in an aeroplane outside controlled airspace shall fly in meteorological conditions—

(1) of not less than a ceiling of 1000 feet AGL and a flight visibility of not less than 5 km; and

(2) if the use is by night, of not less than a ceiling of 3000 feet AGL and a flight visibility of not less than 16 km.

(c) Except as provided in paragraph (d), a pilot-in-command performing a VFR air operation in an aeroplane outside controlled airspace shall fly—

(1) beneath the ceiling, remaining clear of cloud, and in continuous sight of the ground or water; and

(2) above not more than scattered cloud.

(d) A pilot-in-command shall not carry out an air operation under VFR in a multi-engined aeroplane above more than scattered cloud unless—

(1) the aeroplane meets the requirements for IFR flight and the required minimum flight crew for IFR operation, holding current instrument rating qualifications, is at the controls; and

(2) the instruments and equipment, including radio navigation equipment, required for IFR flight are operative; and

(3) the aeroplane is capable, with one engine inoperative, of maintaining a net flight path that has a positive slope at 1000 feet above the cloud; and

(4) the aeroplane carries radio navigation equipment enabling it to be navigated by IFR to an aerodrome where an instrument approach procedure may be carried out for landing; and

(5) the aeroplane carries sufficient fuel and fuel reserves to proceed by IFR to an aerodrome where an instrument approach procedure may be carried out for landing.

125.157 Meteorological conditions – IFR flight

Each pilot-in-command performing an air operation shall not commence an IFR flight operation unless current meteorological reports, or a combination of current reports and forecasts, indicate that conditions will, at the estimated time of arrival, be at or above the minimum prescribed under Part 95 for the instrument procedure likely to be used at the applicable destination aerodrome.

[Until Part 95 comes into force, instrument approach procedures are prescribed under Part 19]

125.159 Aerodrome operating minima – IFR flight

(a) A pilot-in-command shall not continue an instrument approach to an aerodrome past the final approach fix or, where a final approach fix is not used, the final approach segment of the instrument approach procedure if, prior to passing the final approach fix or the final approach segment, current meteorological information indicates the visibility at the aerodrome is less than the visibility prescribed under Part 95 for the instrument approach procedure being used.

(b) For the purpose of this rule, the final approach segment begins—

(1) at the final approach fix or facility prescribed in the instrument approach procedure; or

(2) when a final approach fix is not prescribed for a procedure that includes a procedure turn, at the point where the procedure turn is completed and the aeroplane is established on the final approach course within the distance prescribed in the procedure.

[Until Part 95 comes into force, instrument approach procedures are prescribed under Part 19]

125.161 IFR departure limitations

Each person performing an air operation shall ensure an IFR flight from an aerodrome is not commenced when weather conditions are at or above take-off minima requirements prescribed under 91.413 and are below authorised IFR landing minima requirements prescribed under 91.413, unless there is an appropriate aerodrome—

(1) for a two engined aeroplane, within a maximum of one hour flying time, in still air at one engine inoperative cruising speed, of the aerodrome of departure; or

(2) for an aeroplane having three or more engines, within a maximum of two hours flying time, in still air at one engine inoperative cruising speed, of the aerodrome of departure.

125.163 Reduced take-off minima

(a) Each holder of an air operator certificate may operate an aeroplane at lower take-off minima than that prescribed in 91.413(g) provided the holder of an air operator certificate ensures that the operation is conducted in

accordance with the reduced minima take-off procedure specified in the certificate holder's exposition.

(b) The reduced take-off minima procedure shall ensure that—

(1) each flight crew member is qualified for reduced minima take-offs; and

(2) the runway to be used has centre-line marking or centre-line lighting; and

(3) Part 95 authorises reduced take-off minima on the runway to be used; and

(4) if the aeroplane is a two-engine propeller-driven aeroplane, the aeroplane is equipped with an operative auto-feather or auto-course system; and

(5) the runway visibility is established using RVR; and

(6) the method for observing and confirming that the required visibility exists for that take-off is acceptable to the Director.

[Until Part 95 comes into force, instrument approach procedures are prescribed under Part 19]

125.165 IFR procedures

(a) Each pilot-in-command shall conduct IFR air operations on routes prescribed under Part 95 except when—

(1) it is necessary to avoid potentially hazardous conditions; or

(2) operating under radar control from an ATS; or

(3) operating under an off-route clearance obtained from an ATC unit; or

(4) otherwise specified in the exposition of the holder of the air operator certificate that authorises the operation.

(b) Unless a clearance has been obtained from the appropriate ATC unit, in controlled airspace, each pilot-in-command shall comply with any IFR

departure and approach procedures prescribed under Part 95 for the appropriate aerodrome.

(c) In uncontrolled airspace each pilot-in-command shall comply with any IFR departure and approach procedures prescribed under Part 95 for the appropriate aerodrome.

[Until Part 95 comes into force, instrument approach procedures are prescribed under Part 19]

Subpart D — Performance

125.201 Purpose

(a) Except as provided in paragraphs (b), (c), and (d), this Subpart prescribes aeroplane performance operating limitations applicable to aeroplanes used in performing air operations.

(b) Rules 125.229 through to and including 125.235 do not apply to propeller-powered aeroplanes, certificated to—

(1) FAR Part 23 normal category or equivalent airworthiness standards; or

(2) SFAR 23 airworthiness standards or equivalent standards.

(c) Rules 125.209, 125.213, 125.223, and 125.225 do not apply to propeller-powered aeroplanes, certificated to—

(1) SFAR 41 standards or equivalent airworthiness standards; or

(2) FAR Part 23 commuter category airworthiness standards or equivalent airworthiness standards; or

(3) FAR Part 135 Appendix A airworthiness standards.

(d) Aeroplanes that cannot fully comply with the requirements of this Subpart may be approved to operate under alternative performance operating limitations.

125.203 Reserved

125.205 Part 121 Subpart D compliance

Each holder of an air operator certificate shall ensure that each aeroplane it operates that is certificated to FAR Part 25 airworthiness standards or equivalent airworthiness standards, complies with the aeroplane performance operating limitations prescribed in Subpart D of Part 121.

125.207 General aeroplane performance

Each holder of an air operator certificate shall ensure that, for each aeroplane it operates—

(1) the take-off weight at the start of its take-off is not greater than the weight permitted under this Subpart for the flight to be undertaken allowing for the expected reductions in weight as the flight proceeds; and

(2) the performance data used to determine compliance with the performance requirements of this Subpart is—

(i) contained in the aeroplane flight manual; or

(ii) in the case of contaminated landing distance data, provided by the aeroplane manufacturer and acceptable to the Director.

125.209 Take-off distance

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates—

(1) the take-off weight does not exceed the maximum take-off weight specified in the flight manual; and

(2) the take-off distance required does not exceed 85% of the take-off run available.

(b) When calculating the take-off weight and distance to determine compliance with paragraph (a), the holder of an air operator certificate shall take account of—

(1) the take-off run available; and

(2) the weight of the aeroplane at the commencement of the take-off run; and

(3) the pressure altitude of the aerodrome; and

(4) ambient temperature at the aerodrome; and

(5) the type of runway surface and the runway surface condition; and

(6) the runway slope in the direction of take-off; and

(7) not more than 50% of the reported headwind component or not less than 150% of the reported tailwind component.

125.211 Runway surface and slope correction factors

Each holder of an air operator certificate shall ensure that, unless performance data is available that authorises an alternative, the take-off distance calculated for a runway surface type under 125.209(b)(5) or 125.229(c)(4) and the landing distance calculated under 125.223(c)(3) and 125.233(c)(3)—

(1) are corrected for use of other runway surface types by applying the factors in Table 1; and

(2) are corrected for runway slope by—

(i) increasing the take-off distance by 5% for each 1% of uphill slope up to a maximum of 3% upslope; or

(ii) decreasing the landing distance by 5% for each 1% of uphill slope up to a maximum of 3% upslope; or

(iii) decreasing the take-off distance by 5% for each 1% downslope up to a maximum of 3% downslope; or

(iv) increasing the landing distance by 5% for each 1% downslope up to a maximum of 3% downslope.

Table 1

Surface Type	Take-off distance Factor	Accelerate Stop Distance Factor	Landing Distance Factor
Paved	x 1.00	x 1.00	x 1.00
Coral	x 1.00	x 1.03	x 1.05
Metal	x 1.05	x 1.06	x 1.08
Rolled earth	x 1.08	x 1.14	x 1.16
Grass	x 1.14	x 1.20	x 1.18

125.213 Net take-off flight path – aeroplanes under IFR

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates under IFR and, in the case of an aeroplane with two or more engines, assuming that the critical engine is inoperative, all obstacles within the net take-off flight path are cleared vertically by at least 50 feet.

(b) For the purpose of paragraph (a), an obstacle shall be deemed to be within the net take-off flight path if the lateral distance from the obstacle to the intended line of flight does not exceed—

(1) where the intended flight path does not require a track change exceeding 15°—

(i) 45 m plus 0.10D, to a maximum of 600 m or, if the holder of an air operator certificate has established visual or radio navigation track guidance procedures for the pilot, to a maximum of 300 m; or

(ii) for day operations in VMC, 30 m plus 0.10D to a maximum of 600 m or, if the holder of an air operator certificate has established visual or radio navigation track guidance procedures for the pilot, to a maximum of 300 m.

(2) where the intended flight path requires a track change exceeding 15°—

(i) 45 m plus 0.10D, to a maximum of 900 m or, if the holder of an air operator certificate has established visual or radio navigation track guidance procedures for the pilot, to a maximum of 600 m; or

(ii) for day operations in VMC, 30 m plus 0.10D to a maximum of 600 m or, if the holder of an air operator certificate has established visual or radio navigation track guidance procedures for the pilot, to a maximum of 300 m.

(c) For the purpose of paragraph (b), D is the horizontal distance the aeroplane will travel from the end of the take-off distance available.

(d) When calculating the net take-off flight path in accordance with paragraph (a), the holder of an air operator certificate shall ensure that—

(1) the following factors are taken into account—

(i) take-off weight at the commencement of the take-off run; and

(ii) aerodrome elevation; and

(iii) pressure altitude at the aerodrome when the atmospheric pressure varies by more than 1% from the International Standard Atmosphere; and

(iv) ambient temperature at the aerodrome; and

(v) not more than 50% of the reported headwind component or not less that 150% of the reported tailwind component; and

(2) a track change is not made before a height of 50 feet above the take-off surface has been achieved; and

(3) unless otherwise authorised by the Director—

(i) a bank angle exceeding 15° is not made before a height of 50 feet above the take-off surface has been achieved; and

(ii) the bank angle up to and including a height of 400 feet above the take-off surface does not exceed 20°; and

(iii) the bank angle above a height of 400 feet above the take-off surface does not exceed 25°; and

(4) allowance is made for—

(i) the effect of the bank angle on operating speeds and flight path; and

(ii) distance increments resulting from increased operating speeds; and

(iii) retention of stall margin and loss of climb gradient in accordance with 125.215.

125.215 Engine inoperative – gradient and stall corrections

Each holder of an air operator certificate shall, unless performance data is available that authorises an alternative, for compliance with 125.213(d)(4)(iii), retain stall margin and calculate loss of climb gradient by applying the factors in Table 2.

Table 2

Bank angle	Speed correction	Gradient correction
15° to 19°	V_2	1 x Aeroplane flight manual 15° gradient loss
20° to 24°	V_2 + 5 knots	2 x Aeroplane flight manual 15° gradient loss
25°	V_2 + 19 knots	3 x Aeroplane flight manual 15° gradient loss

125.217 En-route – critical engine inoperative

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates having two or more engines, the aeroplane is capable of continuing flight at a positive slope at or above the relevant minimum safe altitudes, to a point 1000 feet above an aerodrome at which the performance requirements can be met under the following conditions—

(1) in the forecasted meteorological conditions expected for the flight; and

(2) with the critical engine inoperative; and

(3) with the remaining engines operating within the maximum continuous power conditions specified.

(b) When calculating the en-route limitations in accordance with paragraph (a), the holder of an air operator certificate shall ensure—

(1) the aeroplane is not assumed to be flying at an altitude exceeding that at which the rate of climb is not less than 300 feet per minute with all engines operating within the maximum continuous power conditions specified in the aeroplane flight manual; and

(2) the assumed en-route gradient with one engine inoperative is the gross-gradient-minus-0.5% gradient.

125.219 En-route – 90 minute limitation

(a) Each holder of an air operator certificate shall ensure that each aeroplane it operates with two engines is not more than 90 minutes away from an aerodrome at which the performance requirements specified in the aeroplane flight manual applicable at the expected landing weight are met.

(b) Except as provided in paragraph (c), the holder of an air operator certificate shall ensure that each aeroplane it operates with three or more engines is not more than 90 minutes away from an aerodrome at which the performance requirements specified in the aeroplane flight manual applicable at the expected landing weight are met.

(c) Each holder of an air operator certificate may operate an aeroplane with three or more engines more than 90 minutes away from an aerodrome

at which the performance requirements specified in the aeroplane flight manual applicable at the expected landing weight are met, provided that—

(1) the two engine inoperative en-route flight path data permits the aeroplane to continue the flight, in the expected meteorological conditions, from the point where two engines are assumed to fail simultaneously, to an aerodrome at which it is possible to land using the prescribed procedure for a landing with two engines inoperative; and

(2) the net flight path, taking into account the effect of icing protection systems if the meteorological conditions require their operation—

(i) has a positive slope at the minimum safe altitude of the route to be flown; or

(ii) based on the gross-gradient-minus-0.5% gradient and failure of the two engines at the most critical en-route point, clears all terrain and obstructions within, except as otherwise provided in paragraph (d), 10 nm of the intended track by at least 2000 feet vertically; and

(3) the net flight path has a positive slope at an altitude of 1500 feet above the aerodrome where the landing is assumed to be made after the failure of two engines; and

(4) the expected weight of the aeroplane at the point where the two engines are assumed to fail shall be not less than that which would include sufficient fuel to proceed to an aerodrome where the landing is assumed to be made, and to arrive there at an altitude of at least 1500 feet directly over the aerodrome and thereafter to fly level for at least 15 minutes.

(d) If the pilot is able, by the use of radio navigation aids, to maintain the intended track by a margin of 5 nm the distance of 10 nm required by paragraph (c)(2)(ii) may be reduced to 5 nm.

(e) When calculating compliance with paragraph (c), the holder of an air operator certificate shall assume the two engines fail at the most critical point of that portion of the route where the aeroplane is more than

90 minutes, at the all engines long range cruising speed at standard temperature and still air, away from an aerodrome at which the performance requirements applicable at the expected landing weight are met.

125.221 Landing-climb – destination and alternate aerodromes

Each holder of an air operator certificate shall ensure that, for each aeroplane it operates—

(1) the landing weight of the aeroplane does not exceed the maximum approach and landing-climb weight, taking into account the altitude and the ambient temperature expected for the estimated time of landing at a destination and alternate aerodrome; and

(2) for instrument approaches with decision heights below 200 feet, the approach weight of the aeroplane, taking into account the take-off weight and the fuel expected to be consumed in flight, allows a missed approach net-climb-gradient, assuming that the critical engine is inoperative in the approach configuration, of—

(i) at least 2.5%; or

(ii) at least the net-climb gradient required to clear any obstacles in the missed approach flight path in accordance with 125.213.

125.223 Landing distance – dry runway

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, the landing weight for the estimated time of landing will not exceed the landing weight specified in the aeroplane flight manual.

(b) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, the landing weight of the aeroplane for the estimated time of landing at the destination aerodrome and at any alternate aerodrome allows a full-stop landing from 50 feet above the threshold within—

(1) for aeroplanes at or below 5700 kg MCTOW, 85% of landing distance available; and

(2) for aeroplanes above 5700 kg MCTOW, 70% of the landing distance available.

(c) When calculating the landing weight in accordance with paragraph (b), the holder of an air operator certificate shall take account of—

(1) aerodrome elevation; and

(2) ambient temperature at the aerodrome; and

(3) the type of runway surface and the runway surface condition ; and

(4) the runway slope in the direction of landing; and

(5) not more than 50% of the reported headwind component or not less than 150% of the reported tailwind component.

(d) For dispatch of an aeroplane to land in accordance with paragraphs (b) and (c), it shall be assumed that the aeroplane will land on the most favourable runway taking into account—

(1) the forecast meteorological conditions; and

(2) surrounding terrain; and

(3) approach and landing aids; and

(4) obstacles within the missed approach flight path.

(e) If the holder of an air operator certificate is unable to comply with paragraph (d) for the destination aerodrome, the aeroplane may be dispatched if an alternate aerodrome is designated that permits compliance with paragraphs (a), (b), and (c).

125.225 Landing distance – wet and contaminated runways

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates—

(1) when the appropriate weather reports or forecasts, or a combination of them, indicate that the runway at the estimated time of arrival of the aeroplane may be wet, the landing distance available is at least 115% of the landing distance required by 125.223; and

(2) when the appropriate weather reports or forecasts, or a combination of them, indicate that the runway at the estimated time of arrival of the aeroplane may be contaminated, the landing distance available is at least—

(i) the landing distance required by paragraph (a)(1); or

(ii) the landing distance determined in accordance with contaminated landing distance data.

(b) A landing distance on a wet runway shorter than that required by paragraph (a)(1), but not less than that required by 125.223, may be used if data specifies a shorter landing distance on wet runways.

125.227 Steep approach and short landing techniques

Each holder of an air operator certificate may perform steep approach procedures using approach slope angles of 4.5°, or more, and with screen heights of less than 50 feet but not less than 35 feet, providing—

(1) the aeroplane flight manual states the maximum approved approach slope angle, any other limitations, procedures, including emergency procedures, for the steep approach, as well as amendments for the field length data when using steep approach criteria; and

(2) for IFR operations, an approach slope indicator system comprising of at least a visual approach slope indicating system is available at each aerodrome at which steep approach procedures are to be conducted; and

(3) for IFR operations, weather minima are specified and approved for each runway to be used with a steep approach; and

(4) for IFR operations, consideration is given to—

(i) obstacles; and

(ii) the type of approach slope indicator reference and runway guidance such as visual aids, MLS, GPS, ILS, LLZ, VOR, or NDB; and

(iii) the minimum visual reference to be required at DH and MDA; and

(iv) usable airborne equipment; and

(v) pilot qualification and special aerodrome familiarisation; and

(vi) aeroplane flight manual limitation and procedures; and

(vii) missed approach criteria.

125.228 FAR Part 23 commuter category and SFAR41 aeroplanes

Rules 125.229 to 125.235 inclusive apply to each holder of an air operator certificate conducting air operations using FAR Part 23 commuter category and SFAR41 aeroplanes.

125.229 Take-off distance

(a) Each holder of an air operator certificate shall ensure that the take-off weight does not exceed the maximum take-off weight specified in the aeroplane flight manual.

(b) When calculating the maximum take-off weight to determine compliance with paragraph (a), the holder of an air operator certificate shall, assuming that the critical engine fails at V_{EF} and using a single V_1, ensure that—

(1) the required accelerate-stop distance does not exceed the accelerate-stop or accelerate slow distance available; and

(2) the take-off distance required does not exceed the take-off distance available; and

(3) any clearway forming part of the take-off distance available shall not exceed half the length of the take-off run available; and

(4) the take-off run does not exceed the take-off run available, using V_1 for the rejected and continued take-off.

(c) When calculating the maximum take-off weight in accordance with paragraph (b), the holder of an air operator certificate shall take account of—

(1) aerodrome elevation; and

(2) pressure altitude of the aerodrome when the atmospheric pressure varies by more than 1% from the International Standard Atmosphere; and

(3) ambient temperature at the aerodrome; and

(4) the type of runway surface and the runway surface condition; and

(5) the runway slope in the direction of take-off; and

(6) not more than 50% of the reported headwind component or not less than 150% of the reported tailwind component.

125.231 Net take-off flight path

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates assuming that the critical engine is inoperative, all obstacles within the net take-off flight path are cleared vertically by at least—

(1) 35 feet in the case of a take-off performed by an aeroplane that is intended to use a bank angle not exceeding 15°; and

(2) 50 feet in the case of a take-off performed by an aeroplane that is intended to use a bank angle exceeding 15°.

(b) For the purpose of paragraph (a), an obstacle shall be deemed to be within the net take-off flight path if the lateral distance from the obstacle to the intended line of flight does not exceed—

(1) where the intended flight path does not require a track change exceeding 15°—

(i) 45 m plus 0.10D, to a maximum of 600 m or, if the holder of an air operator certificate has established visual

or radio navigation track guidance procedures for the pilot, to a maximum of 300 m; or

(ii) for day operations in VMC, 30 m plus 0.10D to a maximum of 600 m or, if the holder of an air operator certificate has established visual or radio navigation track guidance procedures for the pilot, to a maximum of 300 m.

(2) where the intended flight path requires a track change exceeding 15°—

(i) 45 m plus 0.10D, to a maximum of 900 m or, if the holder of an air operator certificate has established visual or radio navigation track guidance procedures for the pilot, to a maximum of 600 m; or

(ii) for day operations in VMC, 30 m plus 0.10D to a maximum of 600 m or, if the holder of an air operator certificate has established visual or radio navigation track guidance procedures for the pilot, to a maximum of 300 m.

(c) For the purpose of paragraph (b), D is the horizontal distance the aeroplane will travel from the end of the take-off distance available.

(d) When calculating the net take-off flight path in accordance with paragraph (a), the holder of an air operator certificate shall ensure—

(1) the following factors are taken into account—

(i) take-off weight at the commencement of the take-off run; and

(ii) aerodrome elevation; and

(iii) pressure altitude at the aerodrome when the atmospheric pressure varies by more than 1% from the International Standard Atmosphere; and

(iv) ambient temperature at the aerodrome; and

(v) not more than 50% of the reported headwind component or not less that 150% of the reported tailwind component; and

(2) a track change is not made before a height of 50 feet above the take-off surface has been achieved; and

(3) unless otherwise authorised by the Director—

(i) a bank angle exceeding 15° is not made before a height of 50 feet above the take-off surface has been achieved; and

(ii) the bank angle up to and including a height of 400 feet above the take-off surface does not exceed 20°; and

(iii) the bank angle above a height of 400 feet above the take-off surface does not exceed 25°; and

(4) adequate allowance is made for—

(i) the effect of the bank angle on operating speeds and flight path; and

(ii) distance increments resulting from increased operating speeds; and

(iii) retention of stall margin and loss of climb gradient in accordance with 125.215.

125.233 Landing distance – dry runway

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, the landing weight for the estimated time of landing will not exceed the landing weight specified in the aeroplane flight manual.

(b) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, the landing weight of the aeroplane for the estimated time of landing at the destination aerodrome and at any alternate aerodrome allows a full-stop landing from 50 feet above the threshold within 70% of the landing distance available assuming that the aeroplane is landed.

(c) When calculating the landing weight in accordance with paragraph (b), the holder of an air operator certificate shall take account of—

(1) aerodrome elevation; and

(2) ambient temperature at the aerodrome; and

(3) the type of runway surface and the runway surface condition; and

(4) the runway slope in the direction of landing; and

(5) not more than 50% of the reported headwind component or not less than 150% of the reported tailwind component.

(d) For dispatch of an aeroplane to land in accordance with paragraphs (b) and (c), it shall be assumed that the aeroplane will land on the most favourable runway taking into account—

(1) the forecast meteorological conditions; and

(2) surrounding terrain; and

(3) approach and landing aids; and

(4) obstacles within the missed approach flight path.

(e) If the holder of an air operator certificate is unable to comply with paragraph (d) for the destination aerodrome, the aeroplane may be dispatched if an alternate aerodrome is designated that permits compliance with paragraphs (a), (b), and (c).

125.235 Landing distance – wet and contaminated runway

Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, when the appropriate weather reports or forecasts, or a combination of them, indicate that the runway at the estimated time of arrival of its aeroplane may be wet or contaminated, the landing distance available is at least 115% of the landing distance required by 125.233.

Subpart E — Weight and Balance

125.301 Purpose

This Subpart prescribes the rules governing the control of loading and weight and balance on an aeroplane.

125.303 Goods, passenger, and baggage weights

(a) Each holder of an air operator certificate shall establish the actual weights of goods and the weights of passengers and their carry-on and checked baggage.

(b) Each holder of an air operator certificate shall establish the actual weights of goods and checked baggage.

(c) Each holder of an air operator certificate shall establish the weights of passengers and their carry-on baggage, by using their—

(1) actual weights; or

(2) standard weights established in accordance with a programme specified in the certificate holder's exposition—

except that the use of actual weights and the use of standard weights, in accordance with paragraph (c), shall not occur on the same air operation.

(d) As an alternative to paragraph (c)(2), the holder of an air operator certificate may use the standard passenger weights specified in paragraph (f) provided they are not used—

(1) in conjunction with actual passenger weights on the same flight; or

(2) when the passenger load will consist entirely, or almost entirely, of persons whose weights are expected to fall outside the standard passenger weight.

(e) When standard passenger weights are used, the holder of an air operator certificate shall ensure that—

(1) the person responsible for the loading of the aeroplane has been furnished with written instructions detailing the—

(i) seating and loading schedule, including any fuel load or other limitations, for the particular aeroplane; and

(ii) conditions under which the schedule may be used with standard passenger weights; and

(2) each item of baggage and goods, excluding carry-on baggage, is weighed.

(f) Standard passenger weights, including carry-on baggage, referred to in paragraph (d), are—

(1) 77 kg for an adult male or female; and

(2) 46 kg for a child aged 4 to 14 years; and

(3) 15 kg for a child under 4 years.

125.305 Aeroplane load limitations

Each holder of an air operator certificate shall ensure that—

(1) the limitations contained in the aeroplane flight manual, or other approved document, relating to the weight and balance of an aeroplane are complied with; and

(2) maximum allowable weights are not exceeded for zero fuel, manoeuvre, take-off, and landing; and

(3) the aeroplane's centre of gravity is within the limits referred to in subparagraph (1) at departure, and will remain within those limits throughout the air operation.

125.307 Load manifest

(a) Each holder of an air operator certificate shall ensure that—

(1) except as provided in paragraph (b), a load manifest has been completed prior to each air operation; and

(2) the load manifest is certified by the pilot-in-command; and

(3) the following details are accurately recorded on the load manifest—

(i) name of pilot-in-command, except where this is recorded by the holder of an air operator certificate in another document; and

(ii) date of the operation; and

(iii) aeroplane type and registration; and

(iv) aerodromes of departure and destination; and

(v) flight number or estimated time of departure; and

(vi) surnames and initial of all crew and passengers, except where this is recorded by the holder of an air operator certificate in another document; and

(vii) the total of the aeroplane empty weight, the weight of any removable equipment, consumables, unusable oil, unusable fuel, and the weight of crew; and

(viii) the weights of passengers, goods, baggage, usable oil, and usable fuel; and

(ix) loaded aeroplane weight; and

(x) evidence that the centre of gravity is within the specified limits, except where this is recorded by the holder of an air operator certificate in another document; and

(xi) the maximum allowable weights for the operation, including zero fuel weight, take-off weight, and landing weight for the operation.

(b) Each holder of an air operator certificate is not required to complete a load manifest for a non-stop flight operation that will be performed under VFR conditions and will depart from, remain within 25 nm of, and return to, the same aerodrome.

Subpart F — Instruments and Equipment

125.351 Purpose

This Subpart prescribes the instruments and equipment required for aeroplanes.

125.353 General

Each holder of an air operator certificate shall ensure that an air operation does not commence unless—

(1) the aeroplane is equipped—

(i) with the type of instruments and equipment required by Part 91 and this Subpart; and

(ii) with the number of instruments and equipment to ensure that the failure of any independent system required for either communication or navigation purposes, or both, will not result in the inability to communicate and navigate safely as required for the route being flown; and

(2) the instruments and equipment installed in the aeroplane comply with the specifications and airworthiness design standards listed in—

(i) Appendix B to this Part; or

(ii) Appendix C to Part 21; or

(iii) Part 26; or

(iv) alternative specifications or standards acceptable to the Director; and

(3) the instruments and equipment have been installed in accordance with the aeroplane manufacturer's instructions or other instructions acceptable to the Director; and

(4) except as may be provided by a MEL approved under 91.539 for use for that aeroplane, the instruments and equipment installed in the aeroplane are in operable condition.

125.355 Seating and restraints

Each holder of an air operator certificate shall ensure that each of its aeroplanes is equipped with a shoulder harness for each crew seat.

125.357 Additional instruments

Each holder of an air operator certificate shall ensure that each of its aeroplanes is equipped with—

(1) the powerplant instruments required by the airworthiness design standards in paragraph (a)(1)(i) or (iv) of Appendix C of Part 21; and

(2) a means of indicating for each reversible pitch propeller, actuated by the propeller blade angle or directly responsive to it, that the propeller is in beta range or reverse pitch.

125.359 Night flight

Each holder of an air operator certificate shall ensure that each of its aeroplanes operated at night is equipped with—

(1) a landing light; and

(2) a light in each passenger compartment.

125.361 Instrument flight rules

(a) Each holder of an air operator certificate shall ensure that each of its aeroplanes operated under IFR is equipped with—

(1) additional, and independent, means of indicating—

(i) airspeed, calibrated in knots, with a means of preventing malfunctioning due to either condensation or icing; and

(ii) sensitive pressure altitude, calibrated in feet; and

(2) spare bulbs for cockpit instrument illumination; and

(3) spare fuses.

(b) Notwithstanding paragraph (a)(1)(i), the holder of an air operator certificate may fit an additional attitude indicator powered by a separate power source.

125.363 Emergency equipment

Each holder of an air operator certificate shall ensure that—

(1) notwithstanding the seat breaks in 91.523(a) and (b), each of its aeroplanes is equipped with the emergency equipment referred to in 91.523; and

(2) the requirements in 91.523(d) and (e) are met for the equipment required by subparagraph (1).

125.365 Public address and crew-member intercom systems

(a) Each holder of an air operator certificate shall ensure that each of its aeroplanes having a certificated seating capacity, excluding any pilot seat, of 10 seats or more is equipped with—

(1) a public address system; and

(2) a crew-member intercom system.

(b) The commencement of paragraph (a) is suspended until it is applied by notice in the Gazette, such application being no sooner than 1 April 1999.

125.367 Cockpit-voice recorder

(a) Each holder of an air operator certificate shall ensure each of its aeroplanes is equipped with a cockpit voice recorder if that aeroplane's flight manual requires two or more flight crew members.

(b) The commencement of paragraph (a) is suspended until it is applied by notice in the Gazette, such application being no sooner than 1 April 1999.

125.369 Flight data recorder

(a) Except as provided in paragraph (c), each holder of an air operator certificate shall ensure each of its multi-engine turbine powered aeroplanes is equipped with a flight data recorder in accordance with B.4 of Appendix B.

(b) The commencement of paragraph (a) is suspended until they are applied by notice in the Gazette, such application being no sooner than 1 April 1999.

(c) Paragraph (a) shall not apply to the holder of an air operator certificate in respect of the following aeroplanes:

(1) de Havilland DHC 6 aeroplanes:

(2) aeroplanes registered on or before 31 March 1997 with a MCTOW of less than 5 700 kg.

125.371 Additional attitude indicator

Each holder of an air operator certificate shall ensure that each of its turbojet or turbofan powered aeroplanes is equipped with a third presentation of attitude.

125.373 Weather radar

Each holder of an air operator certificate shall ensure that each of its turbine powered aeroplanes in excess of 5700 kg MCTOW operating under IFR is equipped with a weather radar.

125.375 Ground proximity warning system

Each holder of an air operator certificate shall ensure that each of its turbine powered aeroplanes operating under IFR is equipped with a GPWS no later than 30 June 2000 if that aeroplane has a MCTOW in excess of 5700 kg.

Subpart G — Maintenance

125.401 Purpose

This Subpart prescribes rules for maintenance for each aeroplane operated under this Part.

125.403 Responsibility for airworthiness

(a) Each holder of an air operator certificate is responsible for the airworthiness of its aeroplanes, including airframes, aircraft engines, propellers, rotors, appliances, emergency equipment, and parts.

(b) Each holder of an air operator certificate shall have a maintenance programme for each aeroplane, aircraft engine, propeller, rotor, appliance, emergency equipment item, and part.

(c) The maintenance programme required by paragraph (b) shall contain standards at least equivalent to Part 91, Subpart G and the manufacturer's maintenance programme.

(d) Each holder of an air operator certificate shall ensure that any maintenance that is performed by the certificate holder, or by any other organisation with whom the certificate holder arranges for the performance of that maintenance, is performed in accordance with its maintenance programme.

125.405 Maintenance organisation

Each holder of an air operator certificate shall—

(1) be certificated under Part 145 and perform the maintenance of its aeroplanes, including airframe, aircraft engines, propellers, rotors, appliances, emergency equipment, and parts in accordance with its exposition and this Part; or

(2) contract with another person certificated under Part 145 for the performance of maintenance.

125.407 Training and information programme

Each holder of an air operator certificate that performs any of its own maintenance, and each other person with whom each holder of an air operator certificate arranges for the performance of that maintenance, shall have a training and information programme that ensures each person who certifies a release to service—

(1) is fully informed about procedures, techniques, and new equipment in use; and

(2) is competent to perform that certification.

125.409 Persons certifying maintenance

Each holder of an air operator certificate shall only use a person appropriately trained, qualified, and authorised to certify a release to service.

125.411 Supervising personnel

Each holder of an air operator certificate that performs any of its own maintenance, and each other organisation with whom each certificate holder arranges for the performance of that maintenance, shall ensure that each person who is supervising maintenance, or making decisions on rectification action, is authorised by the maintenance organisation certificate holder in accordance with its exposition required by Part 145.

125.413 Maintenance personnel duty time limitations

Each holder of an air operator certificate that performs any of its own maintenance, and each other organisation with whom each certificate holder arranges for the performance of that maintenance, shall relieve each person certifying releases to service from duty for—

(1) if the person certifying the release to service is scheduled for more than 16 hours of duty in 24 consecutive hours, a period of at least 8 hours at or before the end of the 16 hours of duty; and

(2) a period of at least 24 consecutive hours during any seven consecutive days or the equivalent thereof within any one calendar month.

125.415 Maintenance review

(a) Each holder of an air operator certificate shall ensure that—

(1) it does not operate an aeroplane unless a maintenance review of the aeroplane has been carried out within the previous 12 months; and

(2) each maintenance review that is carried out is certified as having been carried out.

(b) Each holder of an air operator certificate shall, before certifying that a maintenance review for an aeroplane has been carried out, ensure—

(1) all maintenance specified in the maintenance programme for the aeroplane has been completed within the time periods specified; and

(2) all applicable airworthiness directives have been complied with; and

(3) all defects entered in the maintenance records required by Part 43 have been rectified or properly deferred in accordance with the procedures in the certificate holder's exposition; and

(4) all certifications of release to service required by Part 43.103 have been made in accordance with Part 43.

(c) Each holder of an air operator certificate may certify a maintenance review on the basis of continuing compliance with an internal quality assurance programme acceptable to the Director provided—

(1) the programme samples all the requirements of paragraph (b) during the review period; and

(2) the maintenance review is individually certified for each of the certificate holder's aeroplanes.

(d) Each holder of an air operator certificate shall ensure that the maintenance review—

(1) is certified by an authorised person with experience in respect of that type of aeroplane, that is at least equal to the experience required for the grant of an aircraft maintenance engineer licence rating; and

(2) contains the certifying person's signature, licence or approval number, and the date of entry; and

(3) contains the following statement:

The maintenance review of this aeroplane and such of its equipment as is necessary for its continued airworthiness has been carried out in accordance with the requirements of the Civil Aviation Rules for the time being in force.

Subpart H — Crew Member Requirements

125.501 Purpose

This Subpart prescribes the rules governing the use of flight crew.

125.503 Assignment of flight crew duties

(a) Each holder of an air operator certificate shall ensure that any person carrying out functions as a flight crew member on an air operation—

(1) holds a current licence and rating that are appropriate to the task assigned; and

(2) holds a current medical certificate appropriate to the licence held; and

(3) meets all requirements for the assigned flight-crew duty; and

(4) meets all route and aerodrome qualification requirements for the operation intended.

(b) Each holder of an air operator certificate shall designate, for each period of an air operation—

(1) a pilot-in-command; and

(2) a second-in-command when two or more pilots are required; and

(3) any other flight crew member that may be required by the type of operation to be performed.

(c) Each holder of an air operator certificate shall, for each aeroplane type operated, assign in writing, to all required flight crew members, the necessary functions they are to perform.

(d) Each holder of an air operator certificate shall not require any flight crew member to perform any duties during ground operations, take-off, approach, and landing except those duties required for the safe operation of the aeroplane.

125.505 Pilot-in-command type experience requirements

(a) Each holder of an air operator certificate shall ensure that any person acting as a pilot-in-command of an aeroplane on an air operation has completed, prior to designation as pilot-in-command, on that make and basic model aeroplane, the following operating experience—

(1) for single engine aeroplanes, 5 hours and 5 take-offs and landings:

(2) for multiengine aeroplanes, reciprocating or turbine engine powered, 10 hours and 8 take-offs and landings:

(3) for turbojet or turbofan aeroplanes, 15 hours and 10 take-offs and landings.

(b) The experience required by paragraph (a) shall be acquired as follows—

(1) after satisfactory completion of the appropriate ground and flight training for the aeroplane; and

(2) in flight during air operations, except that flight time and take-off and landing experience may be accrued in a flight simulator approved for this purpose; and

(3) in the case of an aeroplane not previously used by the holder of an air operator certificate in air operations performed, operating experience acquired in the aeroplane type during proving flights or ferry flights may be used to meet this requirement; and

(4) while performing the duties of a pilot-in-command under the supervision of a designated pilot-in-command.

(c) Paragraph (b) shall not apply when the aeroplane is a single-reciprocating or single-turbine engine powered aeroplane.

125.507 Pilot-in-command VFR experience requirements

Each holder of an air operator certificate shall not use a person as pilot-in-command of an aeroplane in an air operation performed under VFR unless that person—

(1) has at least 500 hours of flight time as a pilot, including at least 100 hours of cross-country flight time; and

(2) for night operations, has at least 25 hours of night flight experience.

125.509 Pilot-in-command IFR experience requirements

Each holder of an air operator certificate shall not use a person as pilot-in-command of an aeroplane in an air operation performed under IFR unless that person has at least—

(1) 1200 hours of flight time as a pilot, including 500 hours of cross-country flight time; and

(2) 75 hours of actual or simulated instrument time of which 25 hours can be in a flight simulator approved for this purpose; and

(3) for night operations, 50 hours of night flight time.

125.511 Minimum flight crew – IFR

(a) Each holder of an air operator certificate shall ensure that an aeroplane operated under IFR is operated with two pilots.

(b) Notwithstanding paragraph (a), each holder of an air operator certificate may operate an aeroplane with a seating configuration, excluding pilot seats, of 14 seats or less under IFR with one pilot if—

(1) the aeroplane flight manual permits the aeroplane to be operated by one pilot; and

(2) the aeroplane is equipped with an operative autopilot or stabilisation system capable of operating the aeroplane controls to maintain flight and manoeuvre the aeroplane about the roll and pitch axes with an automatic heading and altitude hold; and

(3) the aeroplane is fitted with a headset that includes a boom microphone and facility for control column transmit-receive switching at the pilot-in-command station; and

(4) the pilot-in-command has met the other applicable requirements of this Part.

Subpart I — Training

125.551 Purpose

This Subpart prescribes rules governing the establishment and operation of a training programme for crew members.

125.553 General

(a) Each holder of an air operator certificate shall establish a training programme to ensure that each of its crew members are trained and competent to perform their assigned duties.

(b) Each holder of an air operator certificate shall ensure that each crew member is trained in accordance with the training programme contained in the certificate holder's exposition.

(c) Each holder of an air operator certificate shall ensure that its training programme is controlled by the certificate holder.

(d) The holder of an air operator certificate may—

(1) conduct the training programme; or

(2) contract with the holder of an aviation training organisation certificate issued under Part 141, to conduct the training programme where the Part 141 certificate authorises the holder to conduct that training; or

(3) for a training programme conducted outside New Zealand, contract with an organisation that meets an equivalent standard specified by Part 141.

125.555 Training records

Each holder of an air operator certificate shall maintain accurate records of all required training undertaken by its crew members.

125.557 Initial training for crew members

(a) Each holder of an air operator certificate shall ensure that each of its crew members, who has not qualified and served as a crew member on an aeroplane, complete initial training conducted—

(1) in a structured manner; and

(2) in accordance with a syllabus that includes training applicable to—

(i) the aeroplane type to be used, including special equipment fitted for the intended operation; and

(ii) the routes and aerodromes appropriate to the intended operation; and

(iii) crew member assignments, functions, and responsibilities; and

(iv) location and operation of emergency equipment available for use by crew members; and

(v) location and use of oxygen equipment; and

(vi) location and use of all normal and emergency exits, including evacuation slides and escape ropes; and

(vii) the certificate holder's policies and procedures appropriate to its air operations.

(b) Each holder of an air operator certificate may vary the syllabus for individual crew members if—

(1) the variation is recorded in the crew member's record of training; and

(2) the certificate holder certifies the variation made and the reasons for such variation in the crew member's record of training.

125.559 Transition training for crew members

(a) Each holder of an air operator certificate shall ensure that each of its crew members already qualified and serving as a crew member on an air operation authorised by the certificate holder's certificate, completes an appropriate transition training course if—

(1) the crew member is changing from one aeroplane type or variant to another type or variant; or

(2) new procedures or equipment are introduced on an existing aeroplane type or variant.

(b) The transition training course shall address—

(1) the use of all safety and emergency equipment and procedures applicable to the aeroplane type or variant; and

(2) new procedures or equipment introduced on the existing aeroplane type or variant.

125.561 Recurrent training for crew members

Each holder of an air operator certificate shall ensure that each of its crew members are adequately trained, current, and proficient for each aeroplane, crew member position, and type of operation, in which the crew member serves.

125.563 Flight attendant training programme

(a) Each holder of an air operator certificate shall, where a flight attendant is used, establish a flight attendant training programme.

(b) Each holder of an air operator certificate shall ensure that its flight attendant training programme addresses, as appropriate—

(1) the authority structure of the aeroplane crew; and

(2) crew member assignments, functions, and responsibilities during emergencies; and

(3) procedures for passenger handling, including emergency procedures and procedures to be followed in dealing with special classes of passengers according to the certificate holder's exposition; and

(4) briefing of passengers; and

(5) location and operation of emergency equipment available for use by cabin or other crew members; and

(6) proper use of cabin equipment and controls; and

(7) location and use of oxygen equipment; and

(8) location and use of all normal and emergency exits, including evacuation slides and escape ropes.

(c) Each holder of an air operator certificate shall ensure that each person performing the functions of a flight attendant on an air operation performed has satisfactorily completed the appropriate ground and flight training for the aeroplane type and crew member position.

125.565 Flight crew training programme

(a) Each holder of an air operator certificate shall establish a flight crew training programme.

(b) Each holder of an air operator certificate shall ensure that its flight crew training programme includes initial, transition, and recurrent training requirements applicable to—

(1) the aeroplane type to be used, including special equipment fitted for the intended operation; and

(2) the routes and aerodromes appropriate to the intended operation; and

(3) the certificate holder's policies and procedures appropriate to its operations.

(c) The training programme shall include, where appropriate, both ground and flight instruction utilising aeroplanes or an approved flight simulator.

(d) The training shall be conducted by a flight crew member instructor who meets the requirements of 125.567.

(e) Each holder of an air operator certificate shall accurately record each separate qualification of each flight crew member and inform the crew member involved in writing of the qualification gained.

125.567 Flight crew member instructor qualifications

Each holder of an air operator certificate shall ensure that any person carrying out functions as an instructor in its flight crew member training programme established under this Part—

(1) has satisfactorily completed the training required by this Subpart to serve as pilot-in-command in operations; and

(2) holds a Category A, B, or D, flight instructor rating; and

(3) completes initial and recurrent training requirements applicable to the instruction carried out.

Subpart J — Crew Member Competency Requirements

125.601 Purpose

This Subpart prescribes the rules governing the operational competency assessment of flight crew members and crew members.

125.603 General

(a) Each holder of an air operator certificate shall establish an operational competency assessment programme in accordance with this Subpart that is controlled by the certificate holder.

(b) The holder of an air operator certificate may—

(1) conduct the operational competency assessment programme; or

(2) contract with an organisation that holds a certificate issued under Part 141, to provide the operational competency assessment programme where the certificate authorises the holder to conduct that programme; or

(3) for an operational competency assessment programme conducted outside New Zealand, contract with an organisation that meets an equivalent standard specified by Part 141 to provide the operational competency assessment programme.

125.605 Flight examiner qualifications

(a) Except as provided in paragraph (b), each holder of an air operator certificate shall ensure that each person performing the functions of a flight examiner in its operational competency assessment programme established under this Part—

(1) has satisfactorily completed the appropriate competency checks required by 125.607 to serve as pilot-in-command in air operations performed; and

(2) has an appropriate current flight examiner rating; and

(3) completes initial and recurrent training requirements applicable to the testing carried out.

(b) Where the operational competency assessment referred to in paragraph (a) is carried out in a flight simulator, the person who is performing the functions of a flight examiner shall—

(1) have satisfactorily completed a competency check as pilot-in-command in a type of operation to which this Part applies; and

(2) have an appropriate flight examiner rating; and

(3) complete initial and recurrent training requirements applicable to the testing carried out.

125.607 Flight crew competency checks

Each holder of an air operator certificate shall ensure—

(1) **for each pilot acting as pilot-in-command,** within the immediately preceding 12 months, the pilot has passed a check of route and aerodrome proficiency, conducted by a flight examiner, that—

(i) consists of at least one flight over one route segment and one or more landings at aerodromes representative of the operations to be flown; and

(ii) establishes that the pilot can satisfactorily perform the duties and responsibilities of a pilot-in-command in operations appropriate to this Part; and

(2) **for each pilot conducting VFR operations,** within the immediately preceding 12 months, the pilot has successfully completed a competency check, conducted by a flight examiner, that shall cover procedures, including emergency procedures, in an aeroplane type normally used by the pilot in the operation; and

(3) **for each pilot crew member of an aeroplane conducting IFR operations,** within the immediately preceding 6 months, the pilot has passed a check conducted by a flight examiner, that covers procedures, including emergency procedures, appropriate to the equipment fitted to the aeroplane and to the type of

operations to which the pilot is assigned by the holder of an air operator certificate.

(4) **for each pilot**, within the immediately preceding 12 months, the pilot has successfully completed a written or oral test of the pilot's knowledge in—

(i) the provisions of the appropriate Civil Aviation Rules and the certificate holder's operations specifications and exposition; and

(ii) for each aeroplane type normally flown by the flight crew member, the aeroplane systems, performance, and operating procedures, and the content of the approved flight manual; and

(iii) navigation, ATC, and meteorology; and

(iv) special flight operations as appropriate to the type of operation; and

(v) new equipment, procedures, and techniques; and

(vi) location and operation of items of emergency equipment; and

(5) an entry is made, and certified, by the flight examiner in the pilot training record for each check carried out, whether satisfactorily or otherwise; and

(6) flight crew competency checks are carried out in an aeroplane or flight simulator approved for this purpose.

125.609 Flight attendant competency checks

Each holder of an air operator certificate shall not use a flight attendant, and a person shall not serve as a flight-attendant, unless, within the immediately preceding 12 months, the certificate holder has determined by appropriate initial and recurrent assessment that the person has adequate knowledge and is competent in the following areas as appropriate to assigned duties and responsibilities—

(1) authority of the pilot-in-command; and

(2) passenger handling, including procedures to be followed in handling persons whose conduct might jeopardise safety; and

(3) crew member assignments, functions, and responsibilities during emergencies, including evacuation of persons who may need assistance; and

(4) briefing of passengers; and

(5) use of cabin equipment and controls; and

(6) location and operation of items of emergency equipment; and

(7) location and operation of oxygen equipment; and

(8) location and operation of all normal and emergency exits, including evacuation chutes and escape ropes; and

(9) seating of persons who may need assistance; and

(10) first aid.

125.611 Crew member – grace provisions

If a crew member who is required to take a test or a flight check completes the test or flight check within one calendar month of the day on which it is required, that crew member shall be deemed to have completed the test or check on the date it is required to be completed.

125.613 Competency and testing records

Each holder of an air operator certificate shall maintain accurate records of all competency assessments and testing of its crew members.

Subpart K — Fatigue of Flight Crew

125.801 Purpose

This Subpart prescribes flight time limitations and other rules to minimise fatigue in flight crew members of aeroplanes engaged in air operations.

125.803 Operator responsibilities

(a) The operator of an aeroplane shall not cause or permit that aeroplane to perform an air operation unless—

(1) a scheme has been established for the regulation of flight and duty times for every person flying in that aeroplane as a flight crew member; and

(2) the scheme addresses the following factors where appropriate to the operator's type of operation:

(i) rest periods prior to flight:

(ii) acclimatisation:

(iii) time zones:

(iv) night operations:

(v) maximum number of sectors:

(vi) single pilot operations:

(vii) two pilot operations:

(viii) two pilots plus additional flight crew members:

(ix) flight crew members' qualifications:

(x) mixed duties:

(xi) dead-head transportation:

(xii) reserve or standby periods:

(xiii) flight duty period:

(xiv) in-flight relief:

(xv) type of operation:

(xvi) cumulative duty time:

(xvii) cumulative flight time:

(xviii) discretionary increases in flight time limitations or flight duty limitations or both:

(xix) circadian rhythm:

(xx) days off:

(xxi) record-keeping; and

(3) the scheme is acceptable to the Director.

(b) The operator of an aeroplane performing an air operation shall not cause or permit any person to fly in the aeroplane as a flight crew member if the operator knows or has reason to believe that the person is suffering from, or, having regard to the circumstances of the flight to be undertaken, is likely to suffer from, such fatigue while they are so flying as may endanger the safety of the aeroplane or its occupants.

(c) The operator of an aeroplane performing air operations shall—

(1) keep an accurate record of the flight times of each flight crew member flying in the aeroplane; and

(2) retain the flight time record required by paragraph (c)(1) for a period of 12 months from the date on which it was made.

(d) Notwithstanding 125.805(c), the flight and duty time scheme limitations shall not apply where the flight is one which ought to be made in the interests of safety or health of any person, in such cases it is the responsibility of the pilot-in-command to be satisfied that the safety of the flight will not be endangered by reason of any flight crew member exceeding the applicable flight time limitations.

125.805 Flight crew responsibilities

(a) A person shall not act as a flight crew member of an aeroplane performing an air operation if that person knows or suspects that they are suffering from, or, having regard to the circumstances of the flight to be undertaken, are likely to suffer from, such fatigue as may endanger the safety of the aeroplane or its occupants.

(b) A flight crew member shall not perform other hire or reward flight duties while employed, engaged, or contracted by an air operator when such duties and flying in addition to that in air operations will exceed the flight or duty time limitations prescribed in the scheme required by 125.803(a)(1) relating to that flight crew member.

(c) A person shall not act as a flight crew member of an aeroplane performing an air operation unless that person has ensured that the limitations prescribed in the scheme required by 125.803(a)(1) relating to that person are not exceeded.

(d) A person shall not act as a flight crew member of an aeroplane performing an air operation if, at the beginning of the flight, the aggregate of all that person's previous and planned flight times on air operations—

(1) during the period of 28 consecutive days expiring at the end of the day on which the flight begins — exceeds 100 hours; or

(2) during the period of 365 consecutive days expiring at the end of the day on which the flight begins — exceeds 1000 hours.

Subpart L — Manuals, Logs, and Records

125.851 Purpose

This Subpart prescribes the rules governing the use and retention of the manuals, logs, and records required for air operations performed.

125.853 Operating information

Each holder of an air operator certificate, shall ensure that the parts of the certificate holder's exposition relevant to the duties of each crew member are current and are accessible to the crew member.

125.855 Documents to be carried

(a) Each holder of an air operator certificate shall ensure that the following documents are carried on each individual flight—

(1) details of the operational flight plan; and

(2) NOTAM and aeronautical information service briefing documentation appropriate to the operation; and

(3) meteorological information appropriate to the operation; and

(4) the load manifest; and

(5) notification of dangerous goods; and

(6) copies of the relevant flight guide charts and plates; and

(7) in the case of regular air transport service, a route guide covering each route flown and alternate aerodromes that may be used.

(b) Each holder of an air operator certificate shall ensure that separate copies of the documents referred to in paragraph (a)(6) are available for each pilot performing flight crew duties on the flight.

125.857 Operation record

(a) Each holder of an air operator certificate shall, for each air operation that it conducts, accurately record—

(1) the planned aspects of the operation; and

(2) the actual accomplishment of the operation.

(b) The record shall be of a permanent nature.

125.859 Retention period

(a) Each holder of an air operator certificate shall ensure that the following information is retained for 12 months from the date it was completed:

(1) operation record:

(2) load manifest:

(3) notification of dangerous goods.

(b) Each holder of an air operator certificate shall ensure that its flight crew records of flight and duty time is retained for 12 months from the date of entry of the record.

(c) Each holder of an air operator certificate shall ensure that its records of training, checking, and qualifications of each crew member is retained until 12 months after the crew member has left the certificate holder's employment.

Appendix A — Reserved

Appendix B — Instruments and Equipment Airworthiness Design Standards

Instruments and equipment required by Subpart F shall meet the following specifications and requirements:

B.1 Public address system

(a) A public address system shall—

(1) except for handsets, headsets, microphones, selector switches, and signalling devices, be capable of operation independent of the crew member intercom system required by 125.365(2); and

(2) be accessible for immediate use from each of two flight crew member stations in the cockpit; and

(3) for each required floor-level passenger emergency exit that has an adjacent flight attendant seat, have a microphone which is readily accessible to the seated flight attendant; and

(4) be capable of operation within 10 seconds by a flight attendant at each of those stations in the passenger compartment from which its use is accessible; and

(5) be understandably audible at all times at all passenger seats, lavatories, flight attendant seats, and work stations.

(b) Notwithstanding paragraph (a)(3) one microphone may serve more than one exit, provided the proximity of the exits allows unassisted verbal communication between seated flight attendants.

B.2 Crew member intercom system

A crew-member intercom system shall—

(1) except for handsets, headsets, microphones, selector switches, and signalling devices, be capable of operation independent of the public address system required by 125.365(1); and

(2) provide a means of two-way communication between all members of the flight crew; and

(3) provide a means of two-way communication between the cockpit and each passenger compartment; and

(4) be accessible for immediate use from each of two flight crew member stations in the cockpit; and

(5) be accessible for use from at least one normal flight-attendant station in each passenger compartment; and

(6) be capable of operation within 10 seconds by a flight attendant at each of those stations in each passenger compartment from which its use is accessible; and

(7) be accessible for use at enough flight attendant stations so that all floor-level emergency exits in each passenger compartment are observable from a station so equipped; and

(8) have an alerting system that—

(i) incorporates aural or visual signals for use by any crew member; and

(ii) has a means for the recipient of a call to determine whether it is a normal call or an emergency call; and

(9) provide a means of two-way communication between ground personnel and any two flight crew members in the cockpit—

(i) when the aeroplane is on the ground; and

(ii) from a location that avoids visible detection from within the aeroplane during the operation of the ground personnel interphone system station.

B.3 Cockpit voice recorder

Cockpit voice recorders shall—

(1) meet the requirements of the TSO C84 series or the TSO C123 series; and

(2) be fitted with an underwater locating device that meets the requirements of the TSO C121 series; and

(3) have a minimum capacity of 30 minutes continuous recording time before any erasure.

B.4 Flight data recorder

Flight data recorders shall—

(1) meet the requirements of the TSO C124 series; and

(2) be fitted with an underwater locating device that meets the requirements of the TSO C121 series; and

(3) be of a non-ejectable type and capable of recording and storing 8 hours of data in a digital form; and

(4) except as provided in an MEL, record the parameters as detailed in—

(i) Figure 1; and

(ii) as applicable, Table 1 and Table 2—

of Appendix B.

B.5 Additional attitude indicator

The third presentation of attitude shall be—

(1) operated independently of any other attitude indicating system; and

(2) powered from a source independent of the electrical generating system; and

(3) capable of continuous reliable operation for 30 minutes after total failure of the electrical generating system; and

(4) operative without selection after total failure of the electrical generating system; and

(5) appropriately lighted during all phases of operation.

B.6 Weather radar

Weather radar shall meet the requirements of the TSO C63 series.

B.7 Ground proximity warning system

GPWS shall meet the requirements of the TSO C92 series.

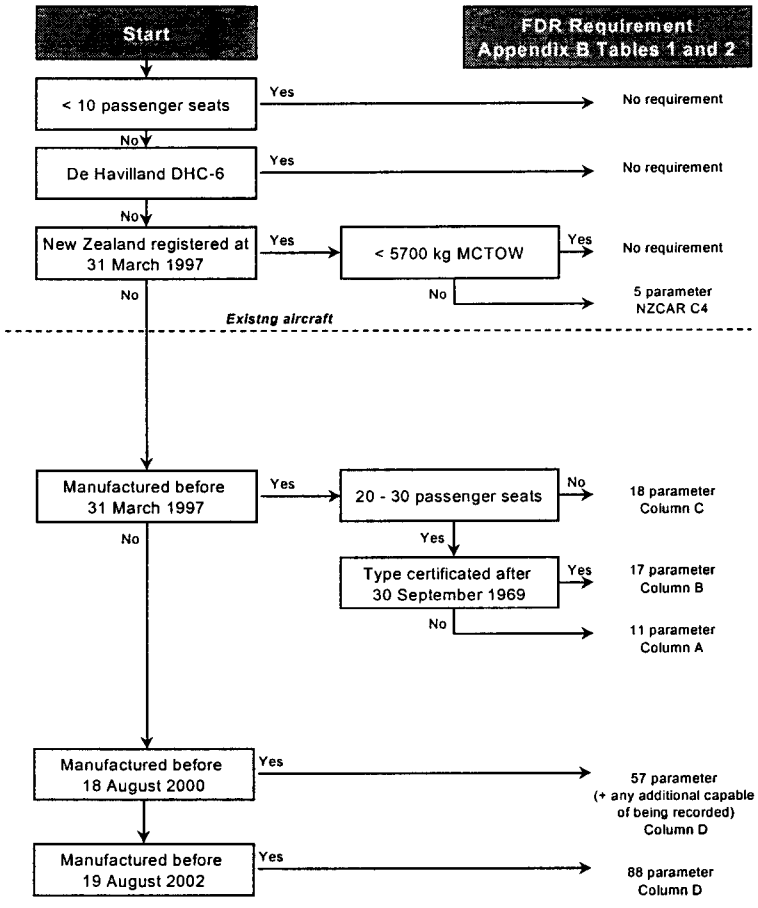

Figure 1. Flight Data Recorder Decision Chart

Table 1. Part 125 - Flight Data Recorder Parameter Requirements

When reading the parameter specifications from Table 2 the corresponding shaded specification should be chosen for each parameter. This table refers to the FDR requirements of 125.369.

	(A)	(B)	(C)	(D)
Parameter * if sensor installed	11 Parameter	17 Parameter	18 Parameter	88 Parameter
1	Time	Time	Time	Time or Relative time counts
2	Altitude	Altitude	Airspeed	Pressure Altitude
3	Airspeed	Airspeed	Altitude	Indicated airspeed or Calibrated airspeed
4	Vertical acceleration	Vertical acceleration	Heading	Heading (primary flight crew reference)
5	Heading	Heading	Vertical acceleration	Normal acceleration (vertical)
6	Time of radio transmission to/from ATC	Time of radio transmission to/from ATC	Longitudinal acceleration	Pitch attitude
7	Pitch attitude	Pitch attitude	Pitch attitude	Roll attitude
8	Roll attitude	Roll attitude	Roll attitude	Manual radio transmitter keying or CVR/DFDR synchronisation reference
9	Longitudinal acceleration	Longitudinal acceleration	Stabiliser trim position OR pitch control position	Thrust/power on each engine (primary flight crew reference)
10	Control column OR pitch control surface position	Pitch trim position	Fan/N1 speed/ EPR/cockpit indications used for aircraft certification OR prop speed and torque	Autopilot engagement

Table 1. Part 125 - Flight Data Recorder Parameter Requirements

When reading the parameter specifications from Table 2 the corresponding shaded specification should be chosen for each parameter. This table refers to the FDR requirements of 125.369.

	(A)	(B)	(C)	(D)
Parameter * if sensor installed	11 Parameter	17 Parameter	18 Parameter	88 Parameter
11	Thrust of each engine	Control column OR pitch control surface position	Altitude rate [1]	Longitudinal acceleration
12		Control wheel OR lateral control surface position	Angle of attack[1]	Pitch control(s) position (non fly-by-wire systems)
				Pitch control(s) position (fly-by-wire systems)
13		Rudder pedal OR yaw control surface position	Radio transmitter keying	Lateral control(s) position (non fly-by-wire systems)
				Lateral control(s) position (fly-by-wire systems)
14		Thrust of each engine	Trailing edge flaps	Yaw control(s) position (non fly-by-wire systems)
				Yaw control(s) position (fly-by-wire systems)
15		Position of each thrust reverser	Leading edge flaps	Pitch control surface(s) position
16		Trailing edge flap OR cockpit flap control position	Thrust reverser, each engine	Lateral control surface(s) position
17		Leading edge flap OR cockpit flap control position	Spoiler/ speedbrake	Yaw control surface(s) position
18			Autopilot engaged	Lateral acceleration

Table 1. Part 125 - Flight Data Recorder Parameter Requirements

When reading the parameter specifications from Table 2 the corresponding shaded specification should be chosen for each parameter. This table refers to the FDR requirements of 125.369.

	(A)	(B)	(C)	(D)
Parameter * if sensor installed	11 Parameter	17 Parameter	18 Parameter	88 Parameter
19				Pitch trim surface position
20				Trailing edge flap or cockpit control position
21				Leading edge flap or cockpit control position
22				Each thrust reverser position or equivalent for propeller aeroplane
23				Ground spoiler position or speed brake position
24				Outside air temperature or total air temperature
25				Autopilot/ autothrottle/AFCS mode and engagement status
26 *				Radio altitude
27				Localiser deviation or MLS azimuth
28				Glideslope deviation or MLS elevation
29				Marker beacon passage
30				Master warning

Table 1. Part 125 - Flight Data Recorder Parameter Requirements

When reading the parameter specifications from Table 2 the corresponding shaded specification should be chosen for each parameter. This table refers to the FDR requirements of 125.369.

Parameter * if sensor installed	(A) 11 Parameter	(B) 17 Parameter	(C) 18 Parameter	(D) 88 Parameter
31				Air/ground sensor (primary aeroplane sensor, nose or main gear)
32 *				Angle of attack (if measure directly)
33				Hydraulic pressure low, each system
34 *				Groundspeed
35				GPWS
36				Landing gear position or landing gear cockpit control selection
37 *				Drift angle
38 *				Wind speed and direction
39 *				Latitude and longitude
40 *				Stick shaker and pusher activation
41 *				Windshear detection
42				Throttle/power lever position
43				Additional engine parameters
44				TCAS
45				DME 1 and 2 distances
46				Nav 1 and 2 selected frequency

Table 1. Part 125 - Flight Data Recorder Parameter Requirements

When reading the parameter specifications from Table 2 the corresponding shaded specification should be chosen for each parameter. This table refers to the FDR requirements of 125.369.

	(A)	(B)	(C)	(D)
Parameter * if sensor installed	11 Parameter	17 Parameter	18 Parameter	88 Parameter
47 *				Selected barometric setting
48 *				Selected altitude
49 *				Selected speed
50 *				Selected Mach
51 *				Selected vertical speed
52 *				Selected heading
53 *				Selected flight path
54 *				Selected decision height
55				EFIS display format
56				Multi-function/engine alerts display format
57 *				Thrust command
58 *				Thrust target
59 *				Fuel quantity in CG trim tank
60				Primary navigation system reference
61 *				Ice detection
62 *				Engine warning each engine - vibration
63 *				Engine warning each engine - over temp
64 *				Engine warning each engine - oil pressure low

Table 1. Part 125 - Flight Data Recorder Parameter Requirements

When reading the parameter specifications from Table 2 the corresponding shaded specification should be chosen for each parameter. This table refers to the FDR requirements of 125.369.

	(A)	(B)	(C)	(D)
Parameter * if sensor installed	11 Parameter	17 Parameter	18 Parameter	88 Parameter
65 *				Engine warning each engine - over speed
66				Yaw trim surface position
67				Roll trim surface position
68				Brake pressure - left and right
69				Brake pedal application - left and right
70 *				Yaw and side-slip angle
71 *				Engine bleed valve position
72 *				De-icing or anti-icing system selection
73				Computed centre of gravity
74				AC electrical bus status
75				DC electrical bus status
76 *				APU bleed valve position
77				Hydraulic pressure each system
78				Loss of cabin pressure

Table 1. Part 125 - Flight Data Recorder Parameter Requirements

When reading the parameter specifications from Table 2 the corresponding shaded specification should be chosen for each parameter. This table refers to the FDR requirements of 125.369.

	(A)	(B)	(C)	(D)
Parameter * if sensor installed	11 Parameter	17 Parameter	18 Parameter	88 Parameter
79				Computer failure - critical flight and engine control systems
80 *				HUD
81 *				Para-visual display
82				Cockpit trim control input position - pitch
83				Cockpit trim control input position - roll
84				Cockpit trim control input position - yaw
85				Trailing edge flap and cockpit flap control position
86				Leading edge flap and cockpit flap control position
87				Ground spoiler position and speed brake selection
88				All cockpit flight control input forces - control wheel, control column, rudder pedal

Notes:

1. If data from the altitude encoding altimeter (100' resolution) is used then either of these parameters should also be recorded. If however, altitude is recorded at a minimum of 25' resolution then these two parameters may be omitted.

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Time or Relative time counts	8 hours minimum 24 hours 0 to 4095	±0.125% per hour	1 4	1s	UTC time preferred when available. Counter increments each four seconds of system operation
Pressure Altitude	-1000' to maximum certificated altitude -1000' to maximum certificated altitude -1000' to maximum certificated altitude +5000'	±100' to ±700' (refer TSO C124a, C51a)	1	25' to 150' 5' to 35'	Data should be obtained from the air data computer when practicable
Indicated airspeed or Calibrated airspeed	V_{so} to V_D (KIAS) 50 KIAS or minimum value to Max V_{so}, and V_{so} to $1.2V_D$	±5% or ±10kts whichever is the greater. Resolution 2kts below 175KIAS ±5% and ±3%	1	1% 1kt	Data should be obtained from the air data computer when practicable
Heading (primary flight crew reference)	360° 0 - 360° and discrete 'true' or 'mag'	±5° ±2°	1	1° 0.5°	When true or magnetic heading can be selected as the primary heading reference, a discrete indicating selection must be recorded
Normal acceleration (vertical)	-3g to +6g	±0.2g in addition to ±0.3g maximum datum ±1% maximum range excluding datum error of ±5%	0.25 0.125	0.03g 0.01g	

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Pitch attitude	100% of usable ±75°	±2°	1 or 0.5 for aeroplanes manufactured after 2002	0.8° 0.5°	A sampling rate of 0.25 is recommended
Roll attitude	±60° or 100% of usable range, whichever is the greater ±180°	±2°	1 or 0.5 for aeroplanes manufactured after 2002	08° 0.5°	A sampling rate of 0.5 is recommended
Manual radio transmitter keying or CVR/DFDR synchronisation reference	Discrete - 'on' or 'off'		1		Preferably each crew member but one discrete acceptable for all transmission provided the CVR/DFDR system complies with TSO C124a CVR synchronisation requirements
Fan N_1 speed or EPR or cockpit indications used for aircraft certification or Propeller speed and torque (sample once/sec as close together as practicable) Thrust/power on each engine (primary flight crew reference)	Maximum range Full range forward	±5% ±2%	1 per engine	1% 0.2% of full range	Sufficient parameters (e.g. EPR, N_1 or Torque, N_P) as appropriate to the particular engine be recorded to determine power in forward and reverse thrust, including potential overspeed conditions
Autopilot engagement	Discrete - 'on' or 'off'		1		
Longitudinal acceleration	±1g	±1.5% maximum range excluding datum error of ±5%	0.25	0.01g	

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Stabiliser trim position or Pitch control(s) position (non fly-by-wire systems)[2]	Full range	±3% unless higher uniquely required ±2°	1 1 0.5 or 0.25 for aeroplanes manufactured after 2002	1% 0.2% of full range	For aeroplanes that have a flight control break away capability that allows either pilot to operate the controls independently, record both control inputs. The control inputs may be sampled alternately once per second to produce the sampling interval of 0.5 or 0.25, as applicable
Pitch control(s) position (fly-by-wire systems)	Full range	±2°	1 0.5 or 0.25 for aeroplanes manufactured after 2002	0.2% of full range	
Lateral control(s) position (non fly-by-wire systems)[2]	Full range	±2°	1 0.5 or 0.25 for aeroplanes manufactured after 2002	0.2% of full range	For aeroplanes that have a flight control break away capability that allows either pilot to operate the controls independently, record both control inputs. The control inputs may be sampled alternately once per second to produce the sampling interval of 0.5 or 0.25, as applicable

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Lateral control(s) position (fly-by-wire systems)	Full range	±2°	1 0.5 or 0.25 for aeroplanes manufactured after 2002	0.2% of full range	
Yaw control(s) position (non fly-by-wire systems)[2]	Full range	±2°	1 0.5	0.2% of full range	For aeroplanes that have a flight control break away capability that allows either pilot to operate the controls independently, record both control inputs. The control inputs may be sampled alternately once per second to produce the sampling interval of 0.5
Yaw control(s) position (fly-by-wire systems)	Full range	±2°	1 0.5	0.2% of full range	

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Pitch control surface(s) position[2]	Full range	±2°	1 0.5 or 0.25 for aeroplanes manufactured after 2002	0.2% of full range	For aeroplanes fitted with multiple or split surfaces, a suitable combination of inputs is acceptable in lieu of recording each surface separately. The control surfaces may be sampled alternately to produce the sampling interval of 0.5 or 0.25
Lateral control surface(s) position[2]	Full range	±2°	1 0.5 or 0.25 for aeroplanes manufactured after 2002	0.2% of full range	A suitable combination of surface position sensors is acceptable in lieu of recording each surface separately. The control surfaces may be sampled alternately to produce the sampling interval of 0.5 or 0.25
Yaw control surface(s) position[2]	Full range	±2°	1 0.5	0.2% of full range	A suitable combination of surface position sensors is acceptable in lieu of recording each surface separately. The control surfaces may be sampled alternately to produce the sampling interval of 0.5

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Lateral acceleration	±1g	±1.5% maximum range excluding datum error of ±5%	0.25	0.01g	Twin engine aircraft only
Pitch trim surface position	Full range	±3%	1	0.3% of full range	
Trailing edge flap or cockpit control position	Full range or discrete each position	±3° ±3° or pilot's indicator	1 2	1% 0.5% of full range	Flap position and cockpit control may each be sampled alternately at four second intervals, to give a data point every two seconds
Leading edge flap or cockpit control position	Full range or discrete each position	±3° ±3° or pilot's indicator	1 2	1% 0.5% of full range	Left and right sides, or flap position and cockpit control may each be sampled at four second intervals, so as to give a data point each two seconds
Each thrust reverser position or equivalent for propeller aeroplane	Discrete - 'stowed' or 'full reverse' Discrete - 'stowed', 'in transit', 'reverse'		1 per engine		Turbo-jet - two discretes enable the three states to be determined Turbo-prop - one discrete
Ground spoiler position or speed brake position	Full range or discrete each position	±2°	1 or 0.5 for aeroplanes manufactured after 2002	0.2% of full range	
Outside air temperature or total air temperature	-50°C to +90°C	±2° C	2	0.3° C	

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Autopilot/autothrottle/AFCS mode and engagement status	Discretes - suitable combination		1		Discretes should show which systems are engaged and which primary modes are controlling the flight path and speed of the aircraft
Altitude rate Radio altitude	±8000 fpm -20' to +2 500'	±10%. Resolution 250fom below 12,000ft indicated ±2' or ±3% whichever is the greater below 500' and ±5% above 500'	1	250fpm below 12,000ft 1' ±5% above 500'	For autoland/category III operations, each radio altimeter should be recorded, but arranged so that at least one is recorded each second.
Localiser deviation or MLS azimuth	±400 microamps or available sensor range as installed ±62°	As installed - ±3% recommended	1	0.3+ of full range	For autoland/category III operations, each radio altimeter should be recorded, but arranged so that at least one is recorded each second. It is not necessary to record ILS and MLS at the same time, only the approach aid in use need be recorded

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Glideslope deviation or MLS elevation	±400 microamps or available sensor range as installed +0.9° to +30°	As installed - ±3% recommended	1	0.3% of full range	For autoland/category III operations, each radio altimeter should be recorded, but arranged so that at least one is recorded each second. It is not necessary to record ILS and MLS at the same time, only the approach aid in use need be recorded
Marker beacon passage	Discrete - 'on' or 'off'		1		A single discrete is acceptable for all markers
Master warning	Discrete		1		Record the master warning and record each 'red' warning that cannot be determined from other parameters or from the cockpit voice recorder
Air/ground sensor (primary aeroplane sensor, nose or main gear)	Discrete - 'air' or 'ground'		1 (0.25 recommended)		
Angle of attack (need depends on altitude resolution)[3] Angle of attack (if measure directly)[3]	-20° to 40° or of usable range As installed	±2° As installed	1 2 or 0.5 for aeroplanes manufactured after 2002	0.8% 0.3% of full range	If left and right sensors are available, each may be recorded at four second intervals so as to give a data point each 0.5 second
Hydraulic pressure low, each system	Discrete - 'low' or 'normal' or available sensor range	±5%	2	0.5% of full range	

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Groundspeed	As installed	Most accurate system installed	1	0.2% of full range	
GPWS	Discrete - 'warning' or 'off'		1		A suitable combination of discretes unless recorder capacity is limited in which case a single discrete for all modes is acceptable
Landing gear position or landing gear cockpit control selection	Discrete		4		A suitable combination of discretes should be recorded
Drift angle	As installed	As installed	4	0.1°	
Wind speed and direction	As installed	As installed	4	1kt and 1°	
Latitude and longitude	As installed	As installed	4	0.002°	Provided by the Primary Navigation System Reference. Where capacity permits latitude/longitude resolution should be 0.0002°
Stick shaker and pusher activation	Discrete - 'on' or 'off'		1		A suitable combination of discretes to determine activation
Windshear detection	Discrete - 'warning' or 'off'		1		
Throttle/power lever position	Full range	±2%	1 per lever	2% of full range	For aeroplanes with non-mechanically linked cockpit engine controls

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Additional engine parameters	As installed	As installed	Each engine each second	2% of full range	Where capacity permits, the preferred priority is - indicated vibration level, N_2, EGT, Fuel Flow, Fuel Cut-off lever position, and N_3, unless the engine manufacturer recommends otherwise
TCAS	Discretes	As installed	1		A suitable combination of discretes should be recorded to determine the status of - Combined Control, Vertical Control, Up Advisory, and Down Advisory. (refer ARINC Characteristic 735 - Attachment 6E, TCAS VERTICAL RA DATA OUTPUT WORD)
DME 1 and 2 distances	0 - 200nm	As installed	4	1nm	1 mile
Nav 1 and 2 selected frequency	Full range	As installed	4		Sufficient to determine selected frequency
Selected barometric setting	Full range	±5%	1 per 64 seconds	0.2% of full range	
Selected altitude	Full range	±5%	1	100'	
Selected speed	Full range	±5%	1	1kt	
Selected Mach	Full range	±5%	1	0.01	
Selected vertical speed	Full range	±5%	1	100ft/min	

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Selected heading	Full range	±5%	1	1°	
Selected flight path	Full range	±5%	1	1°	
Selected decision height	Full range	±5%	64	1'	
EFIS display format	Discretes		4		Discretes should show the display system status (off, normal, fail, composite, sector, plan, navigation aids, weather radar, range, copy)
Multi-function/engine alerts display format	Discretes		4		Discretes should show the display system status (off, normal, fail) and the identity of display pages for emergency procedures need not be recorded
Thrust command	Full range	±2%	2	2% of full range	
Thrust target	Full range	±2%	4	2% of full range	
Fuel quantity in CG trim tank	Full range	±5%	1 per 64 seconds	1% of full range	
Primary navigation system reference	Discretes - 'GPS', 'INS', 'VOR/DME', 'MLS', 'Loran C', 'Omega', 'Localiser Glideslope'		4		A suitable combination of discretes to determine the Primary Navigation System reference
Ice detection	Discrete - 'ice' or 'no ice'		4		
Engine warning each engine - vibration	Discrete		1		

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Engine warning each engine - over temp	Discrete		1		
Engine warning each engine - oil pressure low	Discrete		1		
Engine warning each engine - over speed	Discrete		1		
Yaw trim surface position	Full range	±3%	2	0.3% of full range	
Roll trim surface position	Full range	±3%	2	0.3% of full range	
Brake pressure - left and right	As installed	±5%	1		To determine braking effort applied by pilots or by autobrakes
Brake pedal application - left and right	Discrete or analogue - 'applied' or 'off'	±5%	1		To determine braking applied by pilots
Yaw and side-slip angle	Full range	±5%	1	0.5°	
Engine bleed valve position	Discrete - 'open' or 'closed'		4		
De-icing or anti-icing system selection	Discrete - 'on' or 'off'		4		
Computed centre of gravity	Full range	±5%	1 per 64 seconds	1% of full range	
AC electrical bus status	Discrete - 'power' or 'off'		4		Each bus
DC electrical bus status	Discrete - 'power' or 'off'		4		Each bus
APU bleed valve position	Discrete - 'open' or 'closed'		4		
Hydraulic pressure each system	Full range	±5%	2	100psi	

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
Loss of cabin pressure	Discrete - 'loss' or 'normal'		1		
Computer failure - critical flight and engine control systems	Discrete - 'fail' or 'normal'		4		
HUD	Discrete - 'on' or 'off'		4		
Para-visual display	Discrete - 'on' or 'off'		1		
Cockpit trim control input position - pitch	Full range	±5%	1	0.2% of full range	
Cockpit trim control input position - roll	Full range	±5%	1	0.2% of full range	
Cockpit trim control input position - yaw	Full range	±5%	1	0.2% of full range	
Trailing edge flap and cockpit flap control position	Full range or discrete each position	±5%	2	0.5% of full range	Trailing edge flaps and cockpit flap control position may each be sampled alternately at four second intervals to provide a sample each 0.5 second
Leading edge flap and cockpit flap control position	Full range or discrete each position	±5%	1	0.5% of full range	
Ground spoiler position and speed brake selection	Full range or discrete each position	±5%	0.5	0.2% of full range	

Table 2. Part 125 - Flight Data Recorder Parameter Specifications

This table refers to the FDR requirements of 125.369.

Parameters	Range	Sensor input accuracy[1]	Seconds per sampling interval	Resolution	Remarks
All cockpit flight control input forces - control wheel, control column, rudder pedal	Full range - wheel, column, pedals	±5% - ±70lbs, ±85lbs, ±165lbs respectively	1	0.2% of full range	For fly-by-wire flight control systems, where flight control surface position is a function of the displacement of the control input device only, it is not necessary to record this parameter

Notes:

1. When data sources are aircraft instruments (except altimeters) of acceptable quality to fly the aircraft the recording system excluding these sensors (but including all other characteristics of the recording system) shall contribute no more than half of the values in this column.

2. For aeroplanes that can demonstrate the capability of deriving either the control input or control movement (one from the other) for all modes of operation and flight regimes only the surface position OR the control position need be sensed. For aeroplanes with non-mechanical control systems (fly-by-wire) both surface and control position must be recorded.

3. If data from the altitude encoding altimeter (100' resolution) is used then either of these parameters should also be recorded. If however, altitude is recorded at a minimum of 25' resolution then these two parameters may be omitted.

Appendix C — Runways

This Appendix is referred to in 125.77.

C.1 Minimum runway widths

To determine the minimum runway width it is necessary to ascertain the aerodrome reference code (ARC) appropriate to the aeroplane type by using Table 1. The code is composed of two elements which are related to the aeroplane performance, characteristics, and dimensions. Element 1 is a number based on the aerodrome reference field length (ARFL) and element 2 is a letter based on the aeroplane wing span and outer main gear wheel span.

C.1.1 Determining the ARC using Table 1

(a) **Firstly:** Determine the ARFL of the aeroplane to be operated. The ARFL is the minimum field length for take-off at maximum certificated take-off weight, at sea level, in standard atmospheric conditions, in still air, and with zero runway slope, as derived from the aeroplane flight manual;

(b) **Secondly:** Determine the code number for element 1 applying the aeroplane's aerodrome reference field length; and

(c) **Thirdly:** Determine the code letter of element 2 corresponding to the dimensions of the aeroplane's wing and outer main gear span. The code letter for element 2 is the code letter which corresponds to the wing span, or the outer main gear span, whichever gives the most demanding code letter. For instance, if code letter C corresponds to the aeroplane's wing span and code letter D corresponds to the aeroplane's outer main gear span, the code letter selected would be D for that aeroplane type.

Table 1. Aerodrome Reference Code (ARC)

Code Element 1		Code Element 2		
Code Number	Aeroplane Reference Field Length	Code Letter	Wing Span	Outer Main Gear Wheel Span
1	Less than 800 m	A	Up to but not including 15 m	Up to but not including 4.5 m
2	800 m up to but not including 1200 m	B	15 m up to but not including 24 m	4.5 m up to but not including 6 m
3	1200 m up to but not including 1800 m	C	24 m up to but not including 36 m	6 m up to but not including 9 m
4	1800 m and over	D	36 m up to but not including 52 m	9 m up to but not including 14 m
		E	52 m up to but not including 65 m	9 m up to but not including 14 m

C.1.2 Determining the minimum runway width using Table 2

Having determined the aeroplane's ARC, the runway widths are determined by entering at the applicable code number and then moving across to the value under the applicable code letter. For instance, if the aeroplane ARC is 2C, the required runway width is 30 m.

Table 2. Runway widths

	Code Letter				
Code Number	A	B	C	D	E
1	18 m	18 m	23 m	-	-
2	23 m	23 m	30 m	-	-
3	30 m	30 m	30 m	45 m	-
4	-	-	45 m	45 m	45 m

C.1.3 Determining Minimum runway strip widths

The minimum runway strip width for a particular aeroplane type should be determined by reference to Table 3 below.

Table 3 Minimum Runway Strip Width

Code Number	Runway Type	Strip Width
3 or 4	Precision instrument approach runway at an International aerodrome	300 m
3 or 4	Precision instrument approach runway	220 m
1 or 2	Precision instrument approach runway	150 m
3 and 4	Non-precision instrument approach or non-instrument approach runway	150 m
3 and 4	Non-instrument approach day only applicable to aeroplanes at or below 22700 kg MCTOW	90 m
1 and 2	Non-precision instrument approach runway	150 m
2	Non-instrument approach runway	80 m
1	Non-instrument approach runway	60 m

CONSULTATION DETAILS

(This statement does not form part of the rules contained in Part 125.
It provides details of the consultation undertaken in making the rules.)

The consultation details relating to the initial issue of Part 125 are contained with the associated amendment 6 to Part 135. The comments and all the background material used in developing the rules are held on the docket and are available for public scrutiny. Persons wishing to view the docket should call at Aviation House, 1 Market Grove, Lower Hutt and ask for docket 98/CAR/1303.