

United Kingdom Overseas Territories Aviation Circular

**OTAC 119-10
121-9
125-9
135-9**

Operations Manual

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GENERAL

Overseas Territories Aviation Circulars are issued to provide advice, guidance and information on standards, practices and procedures necessary to support Overseas Territory Aviation Requirements. They are not in themselves law but may amplify a provision of the Air Navigation (Overseas Territories) Order or provide practical guidance on meeting a requirement contained in the Overseas Territories Aviation Requirements.

PURPOSE

This Circular provides guidance on the purpose, structure and content of the Operations Manual required by OTAR Part 119 for AOC holders operating under OTAR Parts 121 or 135. It may also be of assistance to non-Commercial Air Transport operators, including those subject to OTAR Part 125. (The paragraph numbering for Part 125 aligns with that for Parts 121 and 135.)

RELATED REQUIREMENTS

This Circular relates to OTAR Part 119, 121, 125 and 135.

CHANGE INFORMATION

Third issue. Change to guidance in Appendix A, Part A, 1.1 and 8.2, with regards to Ground Handling aspects to be covered within operations manuals, to bring into line with amendments to OTAR Parts 121 and 135 in Issue 12. 12.1(h) amended to include acceptance of ATC clearances.

ENQUIRIES

Enquiries regarding the content of this Circular should be addressed to Air Safety Support International or to the appropriate Overseas Territory Aviation Authority.

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1 Responsibility of the Operator in relation to the Operations Manual

- 1.1 The operator has responsibility for the safe conduct of operations and for compliance with the Air Navigation (Overseas Territories) Order and the Governor's requirements (the OTARs). These laws and requirements are not in themselves sufficient to provide the operator with comprehensive and detailed instructions on which to base an operation. The responsibility for the development of operating instructions necessary for the safety of an operation belongs to the operator. These operating instructions must not conflict with the AN(OT)O, the OTARs or the laws and regulations of other States into or over which operations are conducted. The primary means used by an operator to promulgate these operating instructions is the operations manual.
- 1.2 The operations manual and subsequent revisions have to be submitted to the OTAA. The OTAA will require revision of the manual as necessary to achieve compliance with the AN(OT)O and the OTARs.
- 1.3 The operations manual, which may consist of one or more volumes, should provide in a clear and concise manner the necessary policy guidance, procedures and operating instructions to the operator's personnel on how operations are to be conducted.

2 Operations Manual Structure

- 2.1 OTAR Parts 121.1250 and 135.1250 prescribe the main parts of the operations manual as follows:
- Part A – General;
 - Part B – Aircraft Operating Matters – Type related;
 - Part C – Route and Aerodrome Instructions and Information;
 - Part D – Training.
- 2.2 OTAR Parts 121.1250 and 135.1250 require the operator to ensure that the operations manual is designed to observe human factor principles and provides all material specified in OTAR Part 119.71 and that listed at Appendix 1 to 121.1250 and 135.1250.
- 2.3 Appendix 1 to 121.1250 and 135.1250 provides a comprehensively detailed and structured list of all items to be covered in the operations manual. It is believed that a high degree of standardisation of operations manuals within the UK Overseas Territories will lead to improved overall flight safety.
- 2.4 To facilitate comparability and usability of operations manuals by new personnel, formerly employed by another operator, operators are recommended not to deviate from the numbering system used. If there are sections which, because of the nature of the operation, do not apply, it is recommended that operators maintain the numbering system described below and insert 'Not applicable' or 'Intentionally blank' where appropriate.

3 Operations Manual contents

- 3.1 This OTAC provides additional detail regarding the operational policies, instructions, procedures and other information to be contained in the operations manual in order that operations personnel can satisfactorily perform their duties. When compiling an operations manual an operator may take advantage of the contents of other relevant documents. Material produced by the operator for Part B of the operations manual may be supplemented with or substituted by applicable parts of the aircraft flight manual or, where such a document exists, by an aircraft operating manual produced by the manufacturer of the aircraft. In the case of performance class B aeroplanes, it is acceptable that a “pilot operating handbook” (POH) or equivalent document is used as Part B of the operations manual, provided that the POH covers the necessary items. For Part C of the operations manual, material produced by the operator may be supplemented with or substituted by applicable route guide material produced by a specialised professional company.
- 3.2 If an operator chooses to use material from another source in his operations manual he should either copy the applicable material and include it directly in the relevant part of the operations manual, or the operations manual should contain a statement to the effect that a specific manual(s) (or parts thereof) may be used instead of the specified part(s) of the operations manual.
- 3.3 If an operator chooses to make use of material from an alternative source (e.g. a Route Manual producer, an aeroplane manufacturer or a training organisation) as explained above, this does not absolve the operator from the responsibility of verifying the applicability and suitability of this material. Any material received from an external source should be given its status by a statement in the operations manual.
- 3.4 Page headers and footers should reflect the company name, manual amendment status and page effective date.
- 3.5 References in the middle column of the table in Appendix A below indicate the source requirements but these are not necessarily exhaustive. Operators will need to check the current published version of the OTAR to ensure compliance. The paragraph suffix numbers for Part 125 follow the same numbering system as for Parts 121 and 135.

Appendix A OTAR references and guidance

Part A GENERAL/BASIC	OTAR references	Comments
0 ADMINISTRATION AND CONTROL OF OPERATIONS MANUAL	Here is the link to the: OTARs	
0.1 Introduction	119.67 121.1250(a) 135.1250(a)	<p>(a) A statement that the manual complies with all applicable regulations and with the terms and conditions of the applicable air operator's certificate.</p> <p>(b) A statement that the manual contains operational instructions that are to be complied with by the relevant personnel.</p> <p>(c) A list and brief description of the various parts, their contents, applicability and use.</p> <p>(d) Explanations and definitions of terms and words needed for the use of the manual.</p>
0.2 System of amendment and revision	119.71 121.1250(a) 135.1250(a)	<p>(a) Details of the person(s) responsible for the issuance and insertion of amendments and revisions.</p> <p>(b) A record of amendments and revisions with insertion dates and effective dates.</p> <p>(c) A statement that handwritten amendments and revisions are not permitted except in situations requiring immediate amendment or revision in the interest of safety.</p> <p>(d) A description of the system for the annotation of pages and their effective dates.</p> <p>(e) A list of effective pages.</p> <p>(f) Annotation of changes (on text pages and, as far as practicable, on charts and diagrams).</p> <p>(g) Temporary revisions.</p> <p>(h) A description of the system for staff to propose amendments</p> <p>(i) A description of the distribution system for the manuals, amendments and revisions.</p>
1 ORGANISATION AND RESPONSIBILITIES		
1.1 Organisational structure	119.71 121.1250(a) 135.1250(a)	A description of the organisational structure including the general company organigram and operations department organigram. The organigram must depict the relationship between the Operations Department and the other Departments of the company. In particular, the subordination and reporting lines of all Divisions, Departments etc, which pertain to the safety of flight operations, must be shown. A description of the structure and related responsibilities and authorities for ground handling functions is also to be included.

1.2	Names of nominated postholders	119.71	The name of each nominated postholder responsible for flight operations, the maintenance system, crew training and ground operations, as prescribed in Part 119. A description of their function and responsibilities, including their responsibilities for SMS (see Part A Section 3).
1.3	Responsibilities and duties of operations management personnel	119.71 119.51	A description of the duties, responsibilities and authority of operations management personnel pertaining to the safety of flight operations, including their responsibilities for SMS (see Part A Section 3), and the compliance with the applicable regulations.
1.4	Authority, duties and responsibilities of the pilot-in-command	91.120 91.345 91.350	A statement defining the authority, duties and responsibilities of the pilot-in-command.
1.5.	Duties and responsibilities of crew members other than the pilot-in-command	AN(OT)O Article 180	<i>Article 180 in the AN(OT)O 2013</i>
1.6			Duties and responsibilities associated with ground handling functions, including ramp operations and passenger services
2 OPERATIONAL CONTROL AND SUPERVISION		119.53	The company will appoint a manager(s) to control the numbers of personnel required to operate the numbers and types of aircraft involved. For a small operation, one manager may be capable of supervising the conduct of more than one department; this will have been made clear in Section 1, above.
2.1	Supervision of the operation by the operator	119.53 OTAR 61 121/135 Subpart H 121/135 Subpart I 91.1265	A description of the system for supervision of the operation by the operator. This must show how the safety of flight operations and the qualifications of personnel are supervised. In particular, the procedures related to the following items must be described: (a) Licence and qualification validity; (b) Competence of operations personnel; and (c) Control, analysis and storage of records, flight documents, additional information and data.
2.2	Supplementary flight safety documents	119.65	A description of any system for promulgating information which may be of an operational nature but is supplementary to that in the operations manual. The applicability of this information and the responsibilities for its promulgation must be included. A system should be established to ensure confirmation of receipt of flying staff instructions/administrative notices and flight briefs.
2.3	Operational control	121.155 135.155	A description of the procedures and responsibilities necessary to exercise operational control with respect to flight safety. This paragraph should contain a description of the procedures and responsibilities necessary to exercise operational control with respect to safe operations including flight following. All employees must be made aware that, where more restrictive, they must comply with the laws, regulation and procedures of those states in which operations are conducted and which are pertinent to execution of their duties.

2.4 Use of Standard Operating Procedures (SOP)	121.170 121.175 135.170 135.175	In addition, the provision and use of checklists is covered in 91.285, 121.285 and 135.285.
2.5 Powers of the Governor	91.25 91.30	A description of the powers of the Governor (i.e. his designated regulator) and guidance to staff on how to facilitate inspections by designated personnel.
3 MANAGEMENT SYSTEMS		
(a) SMS	119.59	<p>(a) A description of the safety management system (SMS) appropriate to the size and complexity of the operation, for the proactive management of safety, that integrates the management of operations and technical systems with financial and human resource management, and that reflects quality assurance principles according to the requirements in OTAR Part 119.59. This includes ensuring that the procedures and requirements as contained in the operations manual are adhered to by all operating staff.</p> <p>See OTAC 119-12 Quality Management Systems and OTAC 119-3 Safety Management Systems</p> <p>It is for the operator to decide whether the policies and procedures relating to the SMS will be expressed as a component of existing manuals (e.g. this operations manual, the maintenance control manual etc.) or contained in a separate SMS manual. In any case, detailed local procedures in other documents can be cross-referenced.</p> <p>(b) Information regarding the quality assurance programme in accordance with OTAR Part 119.67. A description of the internal audit process and audit schedule (i.e. compliance with the requirements of the operator's quality system, if applicable), including documentation of audit findings, corrective actions, follow-up procedures, and audit reports.</p> <p>Provision of assurance that any flight data analysis programme is non-punitive and a description of the safeguards to protect the source of the data.</p>
(b) Quality assurance programme	119.61 119.67	
4 CREW COMPOSITION		
4.1 Crew Composition	121.905 135.905	<p>An explanation of the method for determining crew compositions taking account of the following:</p> <p>(a) The type and variant of aircraft being used;</p> <p>(b) The area and type of operation being undertaken;</p> <p>(c) The phase of the flight;</p> <p>(d) The minimum crew requirement and flight duty period planned;</p> <p>(e) Experience (total and on type), recency and qualification of the crew members; and</p>

			<p>(f) The designation of the pilot-in-command and, if necessitated by the duration of the flight, the procedures for the relief of the pilot-in-command or other members of the flight crew.</p> <p>(g) The designation of the senior cabin crew member and, if necessitated by the duration of the flight, the procedures for the relief of the senior cabin crew member and any other member of the cabin crew. The nomination procedure adopted by the operator must be detailed here, together with procedures for selection of the next most suitably qualified cabin crew member in the event of incapacitation of the nominated SCCM.</p>
4.2	Designation of the pilot-in-command	121.920(a) 135.920(a)	The rules applicable to the designation of the pilot-in-command.
4.3.	Flight crew incapacitation	121.920(c) 135.920(c)	Instructions on the succession of command in the event of flight crew incapacitation.
4.4	Operation on more than one type or variant	121.1140 135.1140	<p>A statement indicating which aircraft are considered as one type for the purpose of:</p> <p>(a) Flight crew scheduling; and</p> <p>(b) Cabin crew scheduling.</p> <p>Here and in Part D must be detailed the conditions for operating on more than one type or variant, that satisfy the relevant OTARs and appendices that are specific to the company and have been approved by the Governor.</p>
5 QUALIFICATION REQUIREMENTS			
5.1	Description of licence, experience, qualification/competency, training, checking requirements etc.	121.905 135.905	A description of the required licence, rating(s), qualification/competency (e.g. for routes and aerodromes), experience, training, checking and recency for operations personnel to conduct their duties. Consideration must be given to the aircraft type and variant, kind of operation and composition of the crew. Detail must also be included regarding the usage of part-time or freelance flight crew members.
5.2	Flight crew	<u>121/135</u> Subpart H	<p>(a) Pilot-in-command</p> <p>(b) Pilot relieving the pilot-in-command</p> <p>(c) Co-pilot</p> <p>(d) Pilot under supervision</p> <p>(e) System panel operator</p> <p>(f) Operation on more than one type or variant.</p> <p>In addition to the criteria listed above the minimum level of operating experience that corresponds to the company's scale and scope of operations must be quoted.</p>
5.3	Cabin crew	<u>121/135</u> Subpart H	<p>(a) Senior cabin crew member</p> <p>(b) Cabin crew member</p> <p>(i) Required cabin crew member</p> <p>(ii) Additional cabin crew member and cabin crew member during familiarisation flights.</p>

		(c) Operation on more than one type or variant. Detail must also be included regarding the usage of part-time or freelance cabin crew members
5.4 Training, checking and supervisory personnel	121.570 121.1145 135.570 135.1145	(a) For flight crew. (b) For cabin crew.
5.5 Other operations personnel		A description of the required qualifications and experience plus any training and/or checking requirements.
6 CREW HEALTH PRECAUTIONS		
6.1 Crew health precautions	61.33 61.35 91.120	The relevant regulations and guidance to crew members concerning health including psychoactive substances including but not limited to: (a) Alcohol and other intoxicating liquor (b) Narcotics (c) Drugs (d) Sleeping tablets (e) Pharmaceutical preparations (f) Immunisation (g) Diving, involving underwater pressure breathing devices (h) Blood/bone marrow donation (i) Meal precautions prior to and during flight (j) Sleep and rest (k) Surgical operations (l) Incapacity due to injury or illness (m) Pregnancy In cases of incapacity due to personal injury, illness of 21 days or more, or pregnancy, flight crew members shall make a written report to the Governor
7 FLIGHT TIME LIMITATIONS		
7.1 Flight and duty time limitations and rest requirements for crew members	<u>121/135</u> Subpart K	A description of the scheme developed by the operator in accordance with OTAC 135-10/121-10 .
7.2 Exceedances of flight and duty time limitations and/or reduction of rest periods	121.1210(c) 135.1210(c)	Conditions under which flight and duty time may be exceeded or rest periods may be reduced and the procedures used to report these modifications.
7.3 Management of fatigue in other operational staff	121.1200(a) 135.1200(a)	

8 OPERATING PROCEDURES			
8.1	Flight preparation instructions	91.190 121.190 135.190	A description of the flight preparation instructions as applicable to the operation.
8.1.1	Minimum flight altitudes	121.420 135.420	A description of the method of determination and application of minimum altitudes including: (a) A procedure to establish the minimum altitudes/flight levels for VFR flights; and (b) A procedure to establish the minimum altitudes/flight levels for IFR flights.
8.1.2	Criteria for determining the usability of Aerodromes	91.225 121.225 135.225 <u>Alternates:</u> 121.255 to 121.270 135.255 to 135.270	Criteria and responsibilities for the authorisation of the use of aerodromes taking into account: (a) Ancillary services (b) Operations under IFR (c) Operations under VFR (d) Aerodrome categorization (e) Selection of alternates
8.1.3	Methods for determination of Aerodrome Operating Minima	91.240 121.240 135.240	(a) The method for establishing aerodrome operating minima for IFR flights. Reference must be made to procedures for the determination of the visibility and/or runway visual range and for the applicability of the actual visibility observed by the pilots, the reported visibility and the reported runway visual range. The increase of aerodrome operating minima in case of degradation of approach or aerodrome facilities, or to allow for instrument approach procedures that do not comply with ICAO PANS-OPS. (b) The margin of time established for planning the estimated time of use of an aerodrome. (c) Instructions for determining aerodrome operating minima for instrument approaches using head-up displays (HUD) and enhanced vision systems (EVS).
8.1.4	En-route operating minima for VFR flights or VFR portions of a flight	91.400 121.400 135.400	En-route operating minima for VFR Flights or VFR portions of a flight and, where single-engined aeroplanes are used, instructions for route selection with respect to the availability of surfaces which permit a safe forced landing.
8.1.5	Presentation and application of aerodrome and en-route operating minima	91.240	See also Part C of this manual.
8.1.6	Interpretation of meteorological information	ICAO Annex 3 and any differences notified by States	Explanatory material on the decoding of MET forecasts and MET reports relevant to the area of operations, including the interpretation of conditional expressions.
8.1.7	Instructions for determination of the quantities of fuel, oil and water methanol to be carried and the records to be maintained	121.280 135.280	The methods by which the quantities of fuel, oil and water methanol to be carried are determined and monitored in flight. This section must also include instructions on the measurement and distribution of the fluid carried on board. Such instructions must take account of all circumstances likely to be

		encountered on the flight, including the possibility of in-flight replanning and of failure of one or more of the engines or systems. The system for maintaining fuel and oil records must also be described.
8.1.8	Mass and centre of gravity	<u>121/135</u> Subpart D
		The general principles of mass and centre of gravity including: (a) Definitions; (b) Methods, procedures and responsibilities for preparation and acceptance of mass and centre of gravity calculations; (c) The policy for using standard and/or actual mass; (d) The method for determining the applicable passenger, baggage and cargo mass; (e) The applicable passenger and baggage mass for various types of operations and aircraft type; (f) General instruction and information necessary for verification of the various types of mass and balance documentation in use; (g) Last minute changes (LMC) procedures; (h) Specific gravity of fuel, oil and water methanol; (i) Seating policy/procedures; and (i) Standard load plans.
8.1.9	ATS flight plan	121.160 121.200 135.160 135.200
		Procedures and responsibilities for the preparation and submission of the air traffic services flight plan. Factors to be considered include the means of submission for both individual and repetitive flight plans.
8.1.10	Operational flight plan	121.160 121.165 121.195 135.160 135.165 135.195
		Procedures and responsibilities for the preparation and acceptance of the operational flight plan. The use of the operational flight plan must be described including samples of the operational flight plan formats in use.
8.1.11	Operator's aircraft technical log	39.79 91.345
		The responsibilities and the use of the operator's aircraft technical log must be described, including samples of the format used. The technical log system can be either a paper or computer system or any combination of both methods. In addition specific instructions for completion must be detailed either in this section or in the technical log itself. These instructions must also specify the personnel authorised to enter, defer and clear deferred defects.
8.1.12	List of documents, forms and additional information to be carried	121.50 121.55 135.50 135.55
8.2	Ground handling Procedures	119.59 119.71 121.1250(a) 135.1250(a)
		Including: subcontracting policies, aircraft handling processes, procedures and practices for all ground handling operations. The SMS must cover all aspects of ground handling.

8.2.1 Fuelling/de-fuelling and associated safety procedures	121.335 135.335	A description of fuelling procedures, including: (a) Safety precautions during refuelling and de-fuelling including rotors running, engine(s) running and when an APU is in operation; (b) Refuelling and de-fuelling when passengers are embarking, on board or disembarking; and (c) Precautions to be taken to avoid mixing fuels.
8.2.2 Aircraft, passengers and cargo handling procedures related to safety	119.59 91.95 121.95 135.95 121.125 135.125 <u>Dangerous goods:</u> 92.11	A description of the handling procedures to be used when allocating seats, and embarking and disembarking passengers, and when loading and unloading the aircraft. Further procedures, aimed at achieving safety whilst the aircraft is on the ramp, must also be given. Handling procedures must include: (a) Children/infants, sick passengers and persons with reduced mobility; (b) Transportation of inadmissible passengers, deportees or persons in custody; (c) Permissible size and mass of hand baggage; (d) Loading and securing of items in the aircraft; (e) Special loads (including dangerous goods) and classification of load compartments; (f) Positioning of ground equipment; (g) Operation of aircraft doors; (h) Safety on the ramp, including fire prevention, blast and suction areas; (i) Start-up, ramp departure and arrival procedures including push-back and towing operations; (j) Servicing of aircraft; (k) Documents and forms for aircraft handling; and (l) Multiple occupancy of aircraft seats. If the Company holds a permission for the carriage of dangerous goods, additional instructions must be included in Part B, and further general information is contained in Section 9.
8.2.3 Procedures for the refusal of embarkation	121.125(a)(2) 135.125(a)(2)	Procedures to ensure that persons who appear to be intoxicated or who demonstrate by manner or physical indications that they are under the influence of drugs, are refused embarkation. This does not apply to medical patients under proper care.
8.2.4 De-icing and anti-icing on the ground	91.210 121.210 135.210	A description of the de-icing and anti-icing policy and procedures for aircraft on the ground. These shall include descriptions of the types and effects of icing and other contaminants on aircraft whilst stationary, during ground movements and during take-off. In addition, a description of the fluid types used must be given including:

		<ul style="list-style-type: none"> (a) Proprietary or commercial names; (b) Characteristics; (c) Effects on aircraft performance; (d) Hold-over times; and (e) Precautions during usage; and (f) Recording details in the technical log. 	
8.3	Flight procedures		
8.3.1	VFR/IFR policy	91 App D Rules of the Air, Rule 20 Rule 36	A description of the policy for allowing flights to be made under VFR, or of requiring flights to be made under IFR, or of changing from one to the other
8.3.2	Navigation procedures, including procedures for RNP, RVSM and MNPS airspace where appropriate	121.170 121.205 135.170 135.205 <u>121/135</u> Subpart SPA	<p>A description of all navigation procedures relevant to the type(s) and area(s) of operation. Consideration must be given to:</p> <ul style="list-style-type: none"> (a) Standard navigational procedures including policy for carrying out independent cross-checks of keyboard entries where necessary; (b) MNPS and POLAR navigation and navigation in other designated areas; (c) RNAV, including the use of GPS; (d) In-flight replanning; (e) Procedures in the event of system degradation; and (f) RVSM.
8.3.3	Altimeter setting procedures	-	<p>A description of altimeter serviceability checks and setting procedures including the use, where appropriate, of</p> <ul style="list-style-type: none"> (a) metric altimetry and conversion tables, and (b) QFE operating procedures. <p>Temperature error and corrections to be applied.</p>
8.3.4	Instructions on maintenance of altitude awareness and altitude alerting system procedures	(Equipment requirements 121.665 135.665)	A description of altitude alerting systems include both those devices which, when set, give aural/visual warning of the approach to, or deviation from the selected altitude/flight level, and the more simple device which merely acts as a reminder, via a digital indicator, of the required altitude/flight level.
8.3.5	Instructions on avoidance of controlled flight into terrain; Ground Proximity Warning System / Terrain Avoidance Warning System procedures	121.980 135.980	Procedures and instructions required for the avoidance of controlled flight into terrain, including limitations on high rate of descent near the surface (the related training requirements are covered in Part D paragraph 2.1).
8.3.6	Policy, instructions and procedures for avoidance of collisions; Airborne Collision Avoidance System procedures	91.295	See OTAC 91-5 'ACAS Training for Pilots', including reduction in vertical rate before level-off.
8.3.7	Policy and procedures for in-flight fuel management	121.280 135.280	
8.3.8	Adverse and potentially hazardous atmospheric conditions	91 App D Rules of the Air, Rule 4	<p>Procedures for operating in, and/or avoiding, adverse and potentially hazardous atmospheric conditions including:</p> <ul style="list-style-type: none"> (a) Thunderstorms; (b) Icing conditions; (c) Turbulence;

		<p>(d) Windshear;</p> <p>(e) Jetstream;</p> <p>(f) Volcanic ash clouds;</p> <p>(g) Heavy precipitation;</p> <p>(h) Sand storms;</p> <p>(i) Mountain waves; and</p> <p>(j) Significant temperature inversions.</p>
8.3.9	Wake turbulence	<p>UK AIC P 092/2017</p> <p>A description of wake turbulence separation criteria, taking into account aircraft types, wind conditions and runway location.</p>
8.3.10	Crew members at their stations	<p>91.300</p> <p>The requirements for crew members to occupy their assigned stations or seats during the different phases of flight or whenever deemed necessary in the interest of safety.</p> <p>The procedures for controlled rest on the flight deck.</p>
8.3.11	Use of safety belts for crew and passengers	<p>121.130 135.130</p> <p>91.355</p> <p>The requirements for crew members and passengers to use safety belts and/or harnesses during the different phases of flight or whenever deemed necessary in the interest of safety.</p>
8.3.12	Admission to flight compartment	<p>121.135</p> <p>135.135</p> <p>The conditions for the admission to the flight deck of persons other than the flight crew, including the policy regarding the admission of Inspectors designated by the Governor.</p>
8.3.13	Use of vacant crew seats	<p>121.135 135.135</p> <p>The conditions and procedures for the use of vacant crew seats.</p>
8.3.14	Incapacitation of crew members	<p>121.920(c)</p> <p>135.920(c)</p> <p>Procedures to be followed in the event of incapacitation of crew members in flight. Examples of the types of incapacitation and the means for recognition.</p>
8.3.15	Cabin safety requirements	<p>121.125 121.335</p> <p>135.125 135.335</p> <p>Procedures covering:</p> <p>(a) Cabin preparation for flight, in-flight requirements and preparation for landing including procedures for securing the cabin and galleys;</p> <p>(b) Procedures to ensure that passengers are seated where, in the event that an emergency evacuation is required, they may best assist and not hinder evacuation from the aircraft;</p> <p>(c) Procedures to be followed during passenger embarkation and disembarkation; and</p> <p>(d) Procedures when refuelling/defuelling with passengers embarking, on board or disembarking.</p> <p>(e) Smoking on board.</p> <p>(f) Procedures for the evaluation of, and dealing with, travellers suspected of having a communicable disease, based on the presence of a fever and certain other signs/symptoms.</p>

8.3.16	Passenger briefing procedures	121.125 121.130 135.125 135.130	The contents, means and timing of passenger briefing including: (a) Pre-board briefing concerning dangerous goods (b) Pre-take-off briefing and demonstration (c) In flight (d) Before landing (e) After landing (f) In the event of an emergency
8.3.17	Procedures for aeroplanes operated whenever required cosmic or solar radiation detection equipment is carried	121.315 135.315	Procedures for the use of cosmic or solar radiation detection equipment and for recording its readings, including actions to be taken in the event that limit values specified in the operations manual are exceeded. In addition, the procedures, including ATS procedures, to be followed in the event that a decision to descend or re-route is taken.
8.3.18	Policy on the use of autopilot and autothrottle including use in IMC	-	In particular their use in IMC.
8.4	All Weather Operations	121.240 121.255 Subpart C 135.240 135.255 Subpart C	(a) A description of the operational procedures associated with All Weather Operations. (b) Instructions for the use of head-up displays (HUD) and enhanced vision systems (EVS) equipment as applicable.
8.5	EDTO	121.275 135.275	A description of the EDTO operational procedures.
8.6	Use of the Minimum Equipment and Configuration Deviation List(s)	121.610 135.610	Navigational equipment to be carried/serviceable in order to permit specific operations
8.7	Non-revenue flights	AN(OT)O Article 195 OTAC 91-2 'Commercial Air Transport & Private Operations'	<i>(Article 195 in the AN(OT)O 2013)</i> Procedures and limitations for the operation of non-revenue flights, and guidance on the determination of what does or does not constitute a non-revenue flight. (a) Training flights; (b) Test flights; (c) Delivery flights; (d) Ferry flights; (e) Demonstration flights; and (f) Positioning flights, including the kind of persons who may be carried on such flights. <u>For example:</u> <i>Passenger Carrying Flights</i> (i) Except as stated in paragraph (ii) below, flights on which passengers are carried and for which no payment is made are deemed to be commercial air transport and must be conducted in accordance with all the requirements of the operations manual. (ii) Flights on which passengers are carried but which are not classed as commercial air transport flights (e.g. those carrying company personnel only) should be conducted in accordance with all the requirements of the operations manual.

		<p><i>Non-Passenger Flights, including flight crew training flights</i></p> <p>When no passengers are carried, as for example during flight crew training, aeroplane air tests, delivery and demonstration flights or empty positioning flights, the normal requirements of the operations manual must be met, with the following exceptions:</p> <p>(iii) a mass and balance document need not be raised, nor any copy left on the ground, provided that the pilot-in-command will remain responsible for ensuring that the aeroplane is, and will remain, within the appropriate mass and balance limits throughout the projected flight;</p> <p>(iv) within the UK Overseas Territories, the aerodromes of operation need not be certificated, provided that the specified performance requirements and aerodrome operating minima continue to be met.</p>
8.8 Oxygen requirements, including the method of calculation if appropriate, the manner of storage/carriage and the conditions under which oxygen is required to be used	91.310 121.310 135.310 121.740 135.740	<p>An explanation of the conditions under which oxygen must be provided and used in both pressurized and non-pressurised aircraft.</p> <p>The oxygen requirements and method of calculation specified for:</p> <p>(a) Flight crew;</p> <p>(b) Cabin crew; and</p> <p>(c) Passengers</p>
9 DANGEROUS GOODS AND WEAPONS		
9.1 Information, instructions and general guidance on the transport of dangerous goods including labelling, marking and packaging and the actions to be taken by crew members in the event of a dangerous goods incident	OTAR 92	<p>Information, instructions and general guidance on the transport of dangerous goods, including:</p> <p>(a) Operator's policy on the transport of dangerous goods, including circumstances when a dangerous goods approval is or is not required;</p> <p>(b) Guidance on the requirements for acceptance, labelling, handling, stowage and segregation of dangerous goods;</p> <p>(c) Special notification requirements in the event of an accident or occurrence when dangerous goods are being carried;</p> <p>(d) Procedures for responding to emergency situations involving dangerous goods;</p> <p>(e) Duties of all personnel involved; and</p> <p>(f) Instructions on the carriage of the operator's employees.</p>
9.2 The conditions under which weapons, munitions of war and sporting weapons may be carried	91.105 121.105 121.110 91.105 135.105 135.110	A description of the practical application of the requirements.

10 SECURITY		
10.1 Security instructions and guidance for all operational staff	121.955 135.955 121.330 135.330	Security instructions and guidance of a non-confidential nature which must include the authority and responsibilities of operations personnel. Policies and procedures for handling and reporting crime on board such as unlawful interference, sabotage, bomb threats, and hijacking, including procedures whereby cabin crew members are able to notify flight crew discreetly of any security situation which may arise in the aircraft cabin.
10.2 Preventive security measures and training, including search procedures and guidance on least-risk bomb locations where practicable	121.955 135.955	A description of preventive security measures and training, including search procedures and guidance on least-risk bomb locations where practicable. Procedures for use of aircraft search checklist: For each aircraft a checklist of procedures to be followed in searching that aeroplane for concealed explosives, weapons or acts of sabotage. Checklists must incorporate guidance on the necessary actions in the event of a suspicious item being located. Note: Parts of the security instructions and guidance may be kept confidential
11 HANDLING OF ACCIDENTS AND OCCURRENCES		
11.1 Procedures for the handling, notifying and reporting occurrences	91.120 91.140 91.350	Procedures for the handling, notifying and reporting occurrences should include other safety concerns, for example unsafe condition reports. This section must include: (a) Definition of occurrences and of the relevant responsibilities of all persons involved; (b) Emergency Response Plan (c) Subsequent actions in the event of an accident: descriptions of which company departments, Authorities and other organisations have to be notified, how this will be done and in what sequence; (d) Procedures for verbal notification to air traffic service units of incidents involving ACAS RAs, bird hazards, dangerous goods and meteorological or observed in-flight conditions that may be hazardous to others; (e) Procedures for submitting written reports on air traffic incidents, ACAS RAs, bird strikes, dangerous goods incidents or accidents, and unlawful interference; (f) Reporting procedures to ensure compliance with OTAR Part 13. These procedures must include internal safety related reporting procedures to be followed by crew members, designed to ensure that the pilot-in-command is informed immediately of any incident that has endangered, or may have endangered, safety during flight and that he is provided with all relevant information;

		(g) Illustrations of forms used for reporting all types of occurrences (or copies of the forms themselves), instructions on how they are to be completed, the addresses to which they should be sent and the time allowed for this to be done.
12 RULES OF THE AIR		
12.1 Details of the Rules of the Air that apply to the operation and instructions to crew and other operational staff	91 App D Rules of the Air	<p>A description of the Rules of the Air including:</p> <ul style="list-style-type: none"> (a) Visual and instrument flight rules; (b) Territorial application of the Rules of the Air; (c) Communication procedures including communication-failure procedures; (d) Information and instructions relating to the interception of civil aircraft; (e) The circumstances in which a radio listening watch is to be maintained; (f) Signals; (g) Time system used in operation; (h) ATC clearances, instructions on the clarification and acceptance of ATC clearances (particularly where terrain clearance is involved), adherence to flight plan and position reports; (i) Visual signals used to warn an unauthorised aircraft flying in or about to enter a restricted, prohibited or danger area; (j) Procedures for pilots observing an accident or receiving a distress transmission; (k) The ground/air visual codes for use by survivors, description and use of signal aids; and (l) Distress and urgency signals.
13 LEASING	OTAC 119-6 'Leasing'	A description of the operational arrangements for leasing, associated procedures and management responsibilities.

Part B AIRCRAFT OPERATING MATTERS - TYPE RELATED		Taking account of the differences between types, and variants of types, under the following headings:
0 GENERAL INFORMATION AND UNITS OF MEASUREMENT	Aircraft flight manual OTAR 1, Subpart C	General Information (e.g. aircraft dimensions), including a description of the units of measurement used for the operation of the aircraft type concerned and relevant conversion tables.
1 CERTIFICATION AND OPERATIONAL LIMITATIONS	Aircraft flight manual <u>121/135</u> Subpart E	A description of the certified limitations and the applicable operational limitations including: (a) Certification status (eg. ECAR-23, ECAR-25, FAR 23; FAR 25; etc); (b) Maximum Approved Passenger Seating Configuration (MAPSC) for each aircraft or type, including a pictorial presentation; (c) Types of operation that are approved (e.g. VFR/IFR, CAT II/III, RNP Type, flights in known icing conditions etc.); (d) Crew composition; (e) Mass and centre of gravity; (f) Speed limitations; (g) Flight envelope(s); (h) Wind limits; (i) Performance limitations for applicable configurations; (j) Runway slope; (k) Limitations on wet or contaminated runways; (l) Airframe contamination; and (m) System limitations.
2 NORMAL PROCEDURES ALL AIRCRAFT CREW		
2.1 Procedures for all flight phases, including records to be maintained	121.170 121.245 121.285 135.170 135.245 135.285 <u>ICAO Doc.8168</u> <u>PANS-OPS Vol I,</u> Section 4, Chapter 3 'Stabilized approach procedure'	The normal procedures and duties assigned to the crew, the appropriate checklists, the system for use of the checklists and a statement covering the necessary coordination procedures between flight and cabin crew. The following normal procedures and duties must be included: (a) Pre-flight; (b) Pre-departure; (c) Altimeter setting and checking; (d) Taxi, take-off and climb; (e) Noise abatement; (f) Cruise and descent; (g) Approach, landing preparation and briefing; (h) VFR approach, including stabilised approach parameters; (i) Instrument approach, including stabilised approach parameters;

	121.530 135.530	(j) Visual approach and circling; (k) Missed approach; (l) Normal landing; (m) Post landing; and (n) Operation on wet and contaminated runways.
3 ABNORMAL AND EMERGENCY PROCEDURES FOR ALL AIRCRAFT CREW		
3.1 All abnormal procedures and emergency procedures for the aircraft and required actions of each crew member	121.170 121.285 135.170 135.285	The abnormal and emergency procedures and duties assigned to the crew, the appropriate check-lists, the system for use of the check-lists and a statement covering the necessary co-ordination procedures between flight and cabin crew. The following abnormal and emergency procedures and duties must be included: (a) Crew incapacitation; (b) Fire and smoke drills; (c) Unpressurised and partially pressurised flight; (d) Exceeding structural limits such as overweight landing; (e) Exceeding cosmic radiation limits; (f) Lightning strikes; (g) Distress communications and alerting ATC to emergencies; (h) Engine failure; (i) System failures; (j) Guidance for diversion in case of serious technical failure; (k) Ground proximity warnings (GPWS/TAWS) (l) TCAS alerts and advisories; (m) Windshear; (n) Emergency landing/ditching; and (o) Departure contingency procedures.
4 PERFORMANCE		
4.1 Format	121.1250(a) 135.1250(a)	Performance data must be provided in a form in which it can be used without difficulty.
4.2 Performance data	Aircraft flight manual <u>121/135</u> Subpart E	Performance material which provides the necessary data for compliance with the prescribed performance requirements to allow the determination of: (a) Take-off climb limits – Mass, Altitude, Temperature; (b) Take-off field length (dry, wet, contaminated);

		<p>(c) Net flight path data for obstacle clearance calculation or, where applicable, take-off flight path;</p> <p>(d) The gradient losses for banked climb outs;</p> <p>(e) En-route climb limits;</p> <p>(f) Approach climb limits;</p> <p>(g) Landing climb limits;</p> <p>(h) Landing field length (dry, wet, contaminated) including the effects of an in-flight failure of a system or device, if it affects the landing distance;</p> <p>(i) Brake energy limits; and</p> <p>(j) Speeds applicable for the various flight stages (also considering wet or contaminated runways).</p>
4.2.1. Supplementary data covering flights in icing conditions	<p>121.215 121.650</p> <p>135.215 135.650</p>	Any certificated performance related to an allowable configuration, or configuration deviation, such as anti-skid inoperative.
4.2.2. Alternative performance data	<p>121.565(c)</p> <p>135.565(c)</p>	If performance data, as required for the appropriate performance class, is not available in the aircraft flight manual, then other data acceptable to the Governor must be included. Alternatively, the operations manual may contain cross-reference to the approved data contained in the aircraft flight manual where such data is not likely to be used often or in an emergency.
4.3 Additional performance data	<p>Aircraft flight manual</p> <p><u>121/135</u></p> <p>Subpart E</p>	<p>Additional performance data where applicable including:</p> <p>(a) All engine climb gradients;</p> <p>(b) Drift-down data;</p> <p>(c) Effect of de-icing/anti-icing fluids;</p> <p>(d) Flight with landing gear down;</p> <p>(e) For aeroplanes with three or more engines, one engine inoperative ferry flights; and</p> <p>(f) Flights conducted under the provisions of the CDL.</p>
5 FLIGHT PLANNING		
5.1 Data and instructions necessary for pre-flight and in-flight planning	<p>121.160 121.195 121.200 121.275</p> <p>135.160 135.195 135.200 135.275</p>	Data and instructions necessary for pre-flight and in-flight planning including factors such as speed schedules and power settings. Where applicable, procedures for engine(s)-out operations, EDTO (particularly the one-engine inoperative cruise speed / all-engine operating cruising speed and maximum diversion time) and flights to isolated aerodromes must be included.
5.2 Fuel planning	135.280	The method for calculating fuel needed for the various stages of flight.

<p>5.3 Performance Data for EDTO critical fuel and area of operation</p>	<p>121.285 135.285</p>	<p>(a) Detailed engine(s) inoperative performance data including fuel flow for standard and non-standard atmospheric conditions and as a function of airspeed and power setting, where appropriate, covering:</p> <p>(i) drift down (includes net performance) - where applicable;</p> <p>(ii) cruise altitude coverage including 10,000 feet;</p> <p>(iii) holding;</p> <p>(iv) altitude capability (includes net performance); and</p> <p>(v) missed approach.</p> <p>(b) Detailed all-engine-operating performance data, including nominal fuel flow data, for standard and non-standard atmospheric conditions and as a function of airspeed and power setting, where appropriate, covering:</p> <p>(i) cruise (altitude coverage including 10,000 feet); and</p> <p>(ii) holding.</p> <p>(c) Details of any other conditions relevant to EDTO operations which can cause significant deterioration of performance, such as ice accumulation on the unprotected surfaces of the aeroplane, ram air turbine (RAT) deployment, thrust-reverser deployment, etc.</p> <p>(d) The altitudes, airspeeds, thrust settings, and fuel flow used in establishing the EDTO area of operation for each airframe-engine combination must be used in showing the corresponding terrain and obstruction clearances in accordance with this regulation.</p>
<p>6 MASS AND BALANCE</p>		
<p>6.1 Instructions on all procedures relating to aircraft mass and balance calculations</p>	<p>Aircraft flight manual <u>121/135</u> Subpart D</p>	<p>Instructions and data for the calculation of the mass and balance including:</p> <p>(a) Calculation system (e.g. Index system);</p> <p>(b) Information and instructions for completion of mass and balance documentation, including manual and computer generated calculations;</p> <p>(c) Limiting masses and centre of gravity for the types, variants or individual aircraft used by the operator; and</p> <p>(d) Dry operating mass and corresponding centre of gravity or index.</p>
<p>7 LOADING</p>		
<p>Procedures and provisions for loading and securing the load in the aircraft</p>	<p>119.59 91.95 121.95 135.95 121.125 135.125</p>	<p>Instructions and procedures relating to aircraft loading, including procedures for carriage of animals, aircraft modification for stretcher fit and seating of passengers who may have restricted mobility.</p>

8 CONFIGURATION DEVIATION LIST	121.610 135.610	The Configuration Deviation List(s) (CDL), if provided by the manufacturer, taking account of the aircraft types and variants operated including procedures to be followed when an aircraft is being despatched under the terms of its CDL. (Operators should use the ATA number system when allocating chapters and numbers for aeroplane systems.)
9 MINIMUM EQUIPMENT LIST	121.615 135.615	The Minimum Equipment List (MEL) taking account of the aircraft types and variants operated and the type(s)/area(s) of operation. The MEL must include the navigational equipment and take into account the required navigation performance for the route and area of operation. (Operators should use the ATA number system when allocating chapters and numbers for aeroplane systems.)
10 SURVIVAL AND EMERGENCY EQUIPMENT INCLUDING OXYGEN		
10.1 Details of all survival and emergency equipment carried and instructions for use	121.90 121.710 121.725 135.90 135.710 135.725	A list of the survival equipment to be carried for the routes to be flown and the procedures for checking the serviceability of this equipment prior to take-off. Instructions regarding the location, accessibility and use of survival and emergency equipment and its associated check list(s).
10.2 Oxygen supplies, including procedures for determining amount required and quantity available	121.740 135.740	The procedure for determining the amount of oxygen required and the quantity that is available. The flight profile, number of occupants and possible cabin decompression must be considered. The information provided must be in a form in which it can be used without difficulty.
11 EMERGENCY EVACUATION PROCEDURES		
11.1 Instructions for preparation for emergency evacuation	121.125 135.125	Instructions for preparation for emergency evacuation including crew co-ordination and emergency station assignment.
11.2 Emergency evacuation procedures	121.975(c) 135.975(c)	A description of the duties of all members of the crew for the rapid evacuation of an aircraft and the handling of the passengers in the event of a forced landing, ditching or other emergency.
12 AIRCRAFT SYSTEMS		
Technical particulars of aircraft systems, associated controls and equipment such as may be necessary to enable the flight crew to carry out their duties	Aircraft flight manual	A description of the aircraft systems, related controls and indications and operating instructions. (Operators should use the ATA number system when allocating chapters and numbers for aeroplane systems.)

<p>Part C ROUTE AND AERODROME INSTRUCTIONS AND INFORMATION</p>	<p><u>121/135</u> Subpart C</p> <p>121.55 135.55</p> <p>121.225 135.225</p>	<p>(1) Instructions and information relating to communications, navigation and aerodromes including minimum flight levels and altitudes for each route to be flown and operating minima for each aerodrome planned to be used, including:</p> <ul style="list-style-type: none"> (a) Minimum flight level/altitude; (b) Operating minima for departure, destination and alternate aerodromes; (c) Communication facilities and navigation aids; (d) Runway data and aerodrome facilities; (e) Approach, missed approach and departure procedures including noise abatement procedures; (f) Communication failure procedures; (g) Search and rescue facilities in the area over which the aeroplane is to be flown; (h) A description of the aeronautical charts that must be carried on board in relation to the type of flight and the route to be flown, including the method to check their validity; (i) Availability of aeronautical information and meteorological services; (j) En-route communication and navigation procedures; (k) Aerodrome categorisation for flight crew competence qualification; and (l) Special aerodrome limitations (performance limitations and operating procedures etc.).

Part D TRAINING		
1 TRAINING AND COMPETENCY PROGRAMMES		
1 Training syllabi and checking programmes for all operations personnel	<u>121/135</u> Subparts H, I and J	A description of training syllabi and checking programmes for all operations personnel assigned to operational duties in connection with the preparation and/or conduct of a flight.
2 Training syllabi and checking programmes must include:	-	The training syllabi and checking programmes for all operations personnel will need to include: SMS training; and Security training.
2.1 For flight crew	-	All relevant items prescribed in Subparts H, I and J
2.2 For cabin crew	-	All relevant items prescribed in Subparts H, I and J
2.3 For operations personnel concerned, including crew members	-	(a) All relevant items prescribed in Part 92 (Transport of Dangerous Goods by Air); and (b) All other relevant items prescribed in OTARs pertaining to their duties
2.4 For operations personnel other than crew members (e.g. dispatcher, handling personnel etc.)	-	All other relevant items prescribed in OTARs pertaining to their duties.
3 PROCEDURES		
3.1 Procedures for training and competency checking	121.965 135.965	Procedures for training and competency checking, including use of synthetic training devices.
3.2 Procedures to be applied in the event that personnel do not achieve or maintain the required standards.	<u>121/135</u> Subpart J	An AOC holder may not use, nor may any person serve in a required crewmember capacity or operational capacity unless that person meets the training and currency requirements established for that respective position.
3.3 Procedures for the simulation of abnormal or emergency situations	121.290 135.290	Procedures to ensure that abnormal or emergency situations requiring the application of part or all of abnormal or emergency procedures, and simulation of IMC by artificial means, are not simulated during commercial air transportation flights.
3.3 Training documentation	121.1170 135.1170 91.1265	Description of documentation to be stored and storage periods (see Appendix 1 to 91.1265). Specimens of forms and other documents to be used for maintaining training and competency records.

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