

**DOCUMENTATION ANALYSIS
OPERATIONS MANUAL
Part D : TRAINING**

<i>OPERATOR</i>	
<i>Revision</i>	

INSPECTOR	DATE

<i>REFERENCES</i>	LYCARs & related AMCs/GMs
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OPERATIONS MANUAL – Part D**PA = Prior Approval; A = Applicable, NA = Not Applicable; Reference – OM reference; C = Compliant, NC = Not Compliant**

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
1.	ORO.MLR.100	The operator shall ensure that all personnel are able to understand the language in which those parts of the OM which pertain to their duties and responsibilities are written.						
2.	ORO.MLR.100	The content of the OM shall be presented in a form that can be used without difficulty and observes human factors principles.						
0 ADMINISTRATION AND CONTROL OF OPERATIONS MANUAL								
3.	AMC3 ORO.MLR.100 ORO.GEN.110 (a) ORO.MLR.100	0.1 <i>Introduction</i> (a) A statement that the manual complies with all applicable regulations and with the terms and conditions of the applicable Air Operator Certificate.				The content of the OM shall reflect the requirements set out in Part-ORO, Part-CAT and Part-SPA, as applicable, and shall not contravene the conditions contained in the operations specifications to the air operator certificate (AOC).		
4.	AMC3 ORO.MLR.100 ORO.GEN.110 (b)	(b) A statement that the manual contains operational instructions that are to be complied with by the relevant personnel.				Every flight shall be conducted in accordance with the provision of the ops manual.		
5.	AMC3 ORO.MLR.100 ORO.MLR.101	(c) A list and brief description of the various parts, their contents, applicability and use.				The main structure of the OM shall be as follows: (a) Part A: General/Basic, comprising all non-type-related operational policies, instructions and procedures; (b) Part B: Aircraft operating matters, comprising all type-related instructions and procedures, taking into account differences between types/classes, variants or individual aircraft used by the operator; (c) Part C: Commercial air transport operations, comprising route/role/area and aerodrome/operating site instructions and information; (d) Part D: Training, comprising all training instructions for personnel required for a safe operation.		
6.	AMC3 ORO.MLR.100	(d) Explanations and definitions of terms and words needed for the use of the manual.				Definitions to be checked according LYCARs-Part DEF		

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7.	AMC3 ORO.MLR.100 ORO.MLR.100	0.2 <u>System of amendment and revision</u> (a) Details of the person(s) responsible for the issuance and insertion of amendments and revisions.				For amendments required to be notified in accordance with ORO.GEN.115(b) and ORO.GEN.130(c), the operator shall supply the LYCAA with intended amendments in advance of the effective date; and For amendments to procedures associated with prior approval items in accordance with ORO.GEN.130, approval shall be obtained before the amendment becomes effective. When immediate amendments or revisions are required in the interest of safety, they may be published and applied immediately, provided that any approval required has been applied for.		
8.	AMC3 ORO.MLR.100 ORO.MLR.100	(b) A record of amendments and revisions with insertion dates and effective dates.				The operator shall incorporate all amendments and revisions required by the LYCAA.		
9.	AMC3 ORO.MLR.100 ORO.MLR.100	(c) A statement that handwritten amendments and revisions are not permitted except in situations requiring immediate amendment or revision in the interest of safety.						
10.	AMC3 ORO.MLR.100 ORO.MLR.100	(d) A description of the system for the annotation of pages and their effective dates.						
11.	AMC3 ORO.MLR.100 ORO.MLR.100	(e) A list of effective pages.						
12.	AMC3 ORO.MLR.100 ORO.MLR.100	(f) Annotation of changes (on text pages and, as far as practicable, on charts and diagrams).				The OM shall be kept up to date. All personnel shall be made aware of the changes that are relevant to their duties.		
13.	AMC3 ORO.MLR.100 ORO.MLR.100 AMC1 ORO.MLR.100	(g) Temporary revisions.				The operator should describe the conditions for temporary revisions.		
14.	AMC3 ORO.MLR.100 ORO.AOC.150 ORO.MLR.100	(h) A description of the distribution system for the manuals, amendments and revisions.				The operator shall be capable of distributing operational instructions and other information without delay. All operations personnel shall have easy access to the portions of the OM that are relevant to their duties.		

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						<p>The OM shall be kept up to date. All personnel shall be made aware of the changes that are relevant to their duties.</p> <p>Each crew member shall be provided with a personal copy of the relevant sections of the OM pertaining to their duties. Each holder of an OM, or appropriate parts of it, shall be responsible for keeping their copy up to date with the amendments or revisions supplied by the operator.</p>		
1 DESCRIPTION OF SCOPE								
15.	AMC3 ORO.MLR.100	Description of scope				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 & CHECKING PROGRAMMES								
2.1 FLIGHT CREW								
16.	ORO.FC.145	Provision of training – Programmes & syllabi	✓			Training shall be conducted in accordance with the training programmes and syllabi established by the operator in the OM.		
17.	ORO.FC.145	Provision of training – Training personnel	✓			<p>Training shall be conducted by appropriately qualified personnel. In the case of flight and flight simulation training and checking, the personnel providing the training and conducting the checks shall be qualified in accordance with Part-FCL.</p> <p>A list of instructors/examiners shall be included in OM.</p>		
18.	AMC1 ORO.FC.145(b)	Provision of training – Mandatory elements	✓			When establishing the training programmes and syllabi, the operator shall include the mandatory elements for the relevant type .		
19.	ORO.FC.145	Provision of training – Use of FSTD	✓			<p>The use of individual FSTDs, shall be approved by the LYCAA (Flight Operations Section).</p> <p>The FSTD shall replicate the aircraft used by the operator, as far as practicable. Differences between the FSTD and the aircraft shall be described and addressed through a briefing or training, as</p>		

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						appropriate. The operator shall establish a system to adequately monitor changes to the FSTD and to ensure that those changes do not affect the adequacy of the training programmes.		
20.	AMC1 ORO.FC.145(d)	Provision of training – Use of FSTD	✓			The operator should classify any differences between the aircraft and FFS in accordance with the Air Transport Association (ATA) chapters as follows: <ul style="list-style-type: none"> - Level A differences - Level B differences - Level C differences - Level D differences See AMC1 ORO.FC.145 (d) for more details.		
Command course								
21.	ORO.FC.205	Command course - Content				(a) For aeroplane and helicopter operations, the command course shall include at least the following elements: <ol style="list-style-type: none"> (1) training in an FSTD, which includes line oriented flight training (LOFT) and/or flight training; (2) the OPC, operating as commander; (3) command responsibilities training; (4) line training as commander under supervision, for a minimum of: <ol style="list-style-type: none"> (i) 10 flight sectors, in the case of aeroplanes; and (ii) 10 hours, including at least 10 flight sectors, in the case of helicopters; (5) completion of a line check as commander and demonstration of adequate knowledge of the route or area to be flown and of the aerodromes, including alternate aerodromes, facilities and procedures to be used; and (6) CRM training. 		

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22.	AMC1 ORO.FC.205	Command course – Combined upgrading & conversion course for helicopter				If a pilot is converting from one helicopter type or variant to another when upgrading to commander: (a) the command course should also include a conversion course in accordance with ORO.FC.220; and (b) additional flight sectors should be required for a pilot transitioning onto a new type of helicopter.		
23.	AMC1 ORO.FC.115	Command course – CRM training	✓			The operator should ensure that elements of CRM training are integrated into the command course, as specified in Table 1 of (g) AMC1 ORO.FC.115.		
Route, area & aerodrome knowledge								
24.	ORO.FC.105	Route, area & aerodrome knowledge				The commander or the pilot, to whom the conduct of the flight may be delegated, shall have had initial familiarisation training of the route or area to be flown and of the aerodromes, facilities and procedures to be used. This route/area and aerodrome knowledge shall be maintained by operating at least once on the route or area or to the aerodrome within a 12-month period.		
25.	AMC1 ORO.FC.105(b)(2);(c)	Route, area & aerodrome knowledge – Route & area				Area and route training should include knowledge of: (i) terrain and minimum safe altitudes; (ii) seasonal meteorological conditions; (iii) meteorological, communication and air traffic facilities, services and procedures; (iv) search and rescue procedures where available; and (v) navigational facilities associated with the area or route along which the flight is to take place.		
26.	AMC1 ORO.FC.105(b)(2);(c)	Route, area & aerodrome knowledge – Route & area				Depending on the complexity of the area or route, as assessed by the operator, the following methods of familiarisation should be used: (i) for the less complex areas or routes, familiarisation by self-briefing with route documentation, or by means of programmed instruction; and		

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						(ii) in addition, for the more complex areas or routes, in-flight familiarisation as a pilot-in-command/commander or co-pilot under supervision, observer, or familiarisation in a flight simulation training device (FSTD) using a database appropriate to the route concerned.		
27.	AMC1 ORO.FC.105(b)(2);(c)	Route, area & aerodrome knowledge – Aerodrome				Aerodrome training should include knowledge of obstructions, physical layout, lighting, approach aids and arrival, departure, holding and instrument approach procedures, applicable operating minima and ground movement considerations.		
28.	AMC1 ORO.FC.105(b)(2);(c)	Route, area & aerodrome knowledge – Aerodrome category B				The commander should be briefed, or self-briefed by means of programmed instruction, on the category B aerodrome(s) concerned. <u>The completion of the briefing should be recorded.</u> This recording may be accomplished after completion or confirmed by the commander before departure on a flight involving category B aerodrome(s) as destination or alternate aerodromes.		
29.	AMC1 ORO.FC.105(b)(2);(c)	Route, area & aerodrome knowledge – Aerodrome category C				The commander should be briefed and visit the aerodrome as an observer and/or undertake instruction in a suitable FSTD. <u>The completion of the briefing, visit and/or instruction should be recorded.</u>		
30.	AMC1 ORO.FC.105(c)	Route, area & aerodrome knowledge – Recency				(a) The 12-month period should be counted from the last day of the month: (1) when the familiarisation training was undertaken; or (2) of the latest operation on the route or area to be flown and of the aerodromes, facilities and procedures to be used. (b) When the operation is undertaken within the last 3 calendar months of that period, the new 12-month period should be counted from the original expiry date.		
31.	AMC2 ORO.FC.105(c)	Route, area & aerodrome knowledge – Recency – Perfo class B aeroplanes				In the case of CAT operations with performance class B aeroplanes operating under visual flight rules (VFR) by night or instrument flight rules (IFR), the knowledge should be maintained as follows:		

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						<p>(a) except for operations to the most demanding aerodromes, by completion of at least 10 flight sectors within the area of operation during the preceding 12 months in addition to any required self-briefing;</p> <p>(b) operations to the most demanding aerodromes may be performed only if:</p> <p>(1) the pilot-in-command/commander has been qualified at the aerodrome within the preceding 36 months by a visit as an operating flight crew member or as an observer;</p> <p>(2) the approach is performed in visual meteorological conditions (VMC) from the applicable minimum sector altitude; and</p> <p>(3) an adequate self-briefing has been made prior to the flight.</p>		
32.	ORO.FC.105 CAT.POL.A.240	Route, area & aerodrome knowledge – Increased bank angles				The flight crew shall obtain adequate knowledge of the route to be flown and of the procedures to be used.		
33.	ORO.FC.105 CAT.POL.A.245/345	Route, area & aerodrome knowledge – Steep approach				For each aerodrome at which steep approach operations are to be conducted, pilot qualification and special aerodrome familiarisation shall be taken into consideration.		
34.	ORO.FC.105 CAT.POL.A.250/350	Route, area & aerodrome knowledge – Short landing				The pilot experience, training and special aerodrome familiarisation requirements shall be specified and met.		
CRM - Generalities								
35.	ORO.FC.115	CRM Training	✓			<p>(a) Before operating, the flight crew member shall have received CRM training, appropriate to his/her role, as specified in the operations manual.</p> <p>(b) Elements of CRM training shall be included in the aircraft type or class training and recurrent training as well as in the command course.</p>		
36.	AMC1 ORO.FC.115	CRM - Training environment	✓			CRM training should be conducted in the non-operational environment (classroom and computer-based) and in the operational environment (flight		

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						<p>simulation training device (FSTD) and aircraft). Tools such as group discussions, team task analysis, team task simulation and feedback should be used.</p> <p>Whenever possible, classroom training should be conducted in a group session away from the pressures of the usual working environment, so that the opportunity is provided for flight crew members to interact and communicate in an environment conducive to learning.</p> <p>Computer-based training should not be conducted as a stand-alone training method, but may be conducted as a complementary training method.</p> <p>Whenever practicable, parts of the CRM training should be conducted in FSTDs that reproduce a realistic operational environment and permit interaction. This includes but is not limited to line-oriented flight training (LOFT) scenarios.</p> <p>CRM principles should be integrated into relevant parts of flight crew training and operations including checklists, briefings, abnormal and emergency procedures.</p>		
37.	AMC1 ORO.FC.115	CRM – Management system	✓			CRM training should address hazards and risks identified by the operator's management system described in ORO.GEN.200.		
38.	AMC1 ORO.FC.115	CRM – Competency-based	✓			Whenever practicable, the compliance-based approach concerning CRM training may be substituted by a competency-based approach such as evidence-based training. In this context, CRM training should be characterised by a performance orientation, with emphasis on standards of performance and their measurement, and the development of training to the specified performance standards.		
39.	AMC1 ORO.FC.115	CRM – Contracted CRM training	✓			If the operator chooses not to establish its own CRM training, another operator, a third party or a training organisation may be contracted to provide the training in accordance with ORO.GEN.205. In case of contracted CRM training, the operator should ensure that the content of the course covers the specific		

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						culture, the type of operations and the associated procedures of the operator. When crew members from different operators attend the same course, the CRM training should be specific to the relevant flight operations and to the trainees concerned.		
40.	AMC1 ORO.FC.115	CRM – Syllabus – Automation and philosophy on the use of automation	✓			<p>(i) The CRM training should include training in the use and knowledge of automation, and in the recognition of systems and human limitations associated with the use of automation. The operator should, therefore, ensure that the flight crew member receives training on:</p> <p>(A) the application of the operations policy concerning the use of automation as stated in the operations manual; and</p> <p>(B) system and human limitations associated with the use of automation, giving special attention to issues of mode awareness, automation surprises and over-reliance including false sense of security and complacency.</p> <p>(ii) The objective of this training should be to provide appropriate knowledge, skills and attitudes for managing and operating automated systems. Special attention should be given to how automation increases the need for crews to have a common understanding of the way in which the system performs, and any features of automation that make this understanding difficult.</p> <p>(iii) If conducted in an FSTD, the training should include automation surprises of different origin (system- and pilot-induced).</p>		
41.	AMC1 ORO.FC.115	CRM – Syllabus – Monitoring and intervention	✓			Flight crew should be trained in CRM-related aspects of operation monitoring before, during and after flight, together with any associated priorities. This CRM training should include guidance to the pilot monitoring on when it would be appropriate to intervene, if felt necessary, and how this should be done in a timely manner. Reference should be made to the operator procedures for structured intervention as specified in the operations manual.		

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42.	AMC1 ORO.FC.115 GM5 ORO.FC.115	CRM – Syllabus – Resilience development	✓			<p>CRM training should address the main aspects of resilience development. The training should cover:</p> <p>(i) Mental flexibility</p> <p>Flight crew should be trained to:</p> <p>(A) understand that mental flexibility is necessary to recognise critical changes;</p> <p>(B) reflect on their judgement and adjust it to the unique situation;</p> <p>(C) avoid fixed prejudices and over-reliance on standard solutions; and</p> <p>(D) remain open to changing assumptions and perceptions.</p> <p>(ii) Performance adaptation</p> <p>Flight crew should be trained to:</p> <p>(A) mitigate frozen behaviours, overreactions and inappropriate hesitation; and</p> <p>(B) adjust actions to current conditions.</p> <p>See GM5 ORO.FC.115 for more details.</p>		
43.	AMC1 ORO.FC.115	CRM – Syllabus – Surprise and startle effect	✓			<p>CRM training should address unexpected, unusual and stressful situations. The training should cover:</p> <p>(i) surprises and startle effects; and</p> <p>(ii) management of abnormal and emergency situations, including:</p> <p>(A) the development and maintenance of the capacity to manage crew resources;</p> <p>(B) the acquisition and maintenance of adequate automatic behavioural responses; and</p> <p>(C) recognising the loss and re-building situation awareness and control.</p>		
44.	AMC1 ORO.FC.115	CRM – Syllabus – Cultural differences	✓			<p>CRM training should cover cultural differences of multinational and cross-cultural crews.</p> <p>This includes recognising that:</p>		

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						<p>(i) different cultures may have different communication specifics, ways of understanding and approaches to the same situation or problem;</p> <p>(ii) difficulties may arise when crew members with different mother tongue communicate in a common language which is not their mother tongue; and</p> <p>(iii) cultural differences may lead to different methods for identifying a situation and solving a problem.</p>		
45.	AMC1 ORO.FC.115	CRM – Syllabus – Operator’s safety culture and company culture	✓			CRM training should cover the operator’s safety culture, its company culture, the type of operations and the associated procedures of the operator. This should include areas of operations that may lead to particular difficulties or involve unusual hazards.		
46.	AMC1 ORO.FC.115	CRM – Syllabus – Case studies	✓			<p>(i) CRM training should cover aircraft type-specific case studies, based on the information available within the operator’s management system, including:</p> <p>(A) accident and serious incident reviews to analyse and identify any associated non-technical causal and contributory factors, and instances or examples of lack of CRM; and</p> <p>(B) analysis of occurrences that were well managed.</p> <p>(ii) If relevant aircraft type-specific or operator-specific case studies are not available, the operator should consider other case studies relevant to the scale and scope of its operations.</p>		
47.	AMC2 ORO.FC.115	CRM – Single pilot	✓			<p>For single-pilot helicopter operations with technical crew, AMC1 ORO.FC.115 should be applied.</p> <p>For single-pilot operations other than those specified in (a), AMC1 ORO.FC.115 should be applied with the following differences:</p> <p>(1) Relevant training</p> <p>Training should cover the relevant CRM training, i.e. initial operator’s training, the operator conversion course and recurrent training.</p> <p>(2) Relevant training elements</p>		

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						<p>CRM training should focus on the elements specified in Table 1 of (g) of AMC1 ORO.FC.115 which are relevant to single-pilot operations. Therefore, single-pilot CRM training should include, among others:</p> <p>(i) situation awareness;</p> <p>(ii) workload management;</p> <p>(iii) decision-making;</p> <p>(iv) resilience development;</p> <p>(v) surprise and startle effect; and</p> <p>(vi) effective communication and coordination with other operational personnel and ground services.</p> <p>(3) Computer-based training</p> <p>Notwithstanding (a)(3) of AMC1 ORO.FC.115, computer-based training may be conducted as a stand-alone training method.</p> <p>(4) Operation with ELA2 aircraft</p> <p>Notwithstanding (1) and (2), for operations with ELA2 aircraft the relevant CRM training and its duration should be determined by the operator, based on the aircraft type and the complexity of the operation.</p>		
Initial CRM								
48.	ORO.FC.215	Initial operator's CRM training	✓			<p>(a) The flight crew member shall have completed an initial CRM training course <u>before</u> commencing unsupervised line flying.</p> <p>(c) If the flight crew member has not previously received theoretical training in human factors to the ATPL level, he/she shall complete, before or combined with the initial CRM training, a theoretical course provided by the operator and based on the human performance and limitations syllabus for the ATPL as established in Part-FCL.</p>		
49.	ORO.FC.215 AMC1 ORO.FC.115	Initial operator's CRM training – Content	✓			<p>(1) The flight crew member should complete the initial operator's CRM training once. When the type of operation of a new operator is not different, the new operator should not be required to provide the</p>		

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						initial operator's CRM training to this flight crew member a second time. (2) The initial training should cover all elements specified in Table 1 of (g) AMC1 ORO.FC.115.		
50.	GM3 ORO.FC.115	Initial operator's CRM training – minimum time				Initial operator's CRM training for multi-pilots operations: 18 training hours with a minimum of 12 training hours in classroom training. initial operator's CRM training for single-pilot operations: 6 training hours.		
CRM trainer								
51.	ORO.FC.215 AMC3 ORO.FC.115	CRM trainer - Introduction	✓			The provisions described below: (1) should be fulfilled by flight crew CRM trainers responsible for classroom CRM training; and (2) are not applicable to: (i) instructors, holding a certificate in accordance with Part-FCL, who conduct CRM training in the operational environment; and (ii) trainers or instructors conducting training other than CRM training, but integrating CRM elements into this training.		
52.	ORO.FC.215 AMC3 ORO.FC.115	CRM trainer - Qualification	✓			(1) A training and standardisation programme for flight crew CRM trainers should be established. (2) A flight crew CRM trainer, in order to be suitably qualified, should: (i) have adequate knowledge of the relevant flight operations; (ii) have adequate knowledge of human performance and limitations (HPL), whilst: (A) having obtained a commercial pilot licence in accordance with Part-FCL; or (B) having followed a theoretical HPL course covering the whole syllabus of the HPL examination; (iii) have completed flight crew initial operator's CRM		

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						<p>training;</p> <p>(iv) have received training in group facilitation skills;</p> <p>(v) have received additional training in the fields of group management, group dynamics and personal awareness; and</p> <p>(vi) have demonstrated the knowledge, skills and credibility required to train the CRM</p> <p>training elements in the non-operational environment, as specified in Table 1 of AMC1 ORO.FC.115.</p> <p>(3) The following qualifications and experiences are also acceptable for a flight crew CRM trainer in order to be suitably qualified:</p> <p>(i) A flight crew member holding a recent qualification as a flight crew CRM trainer may continue to be a flight crew CRM trainer after the cessation of active flying duties if he/she maintains adequate knowledge of the relevant flight operations.</p> <p>(ii) A former flight crew member may become a flight crew CRM trainer if he/she maintains adequate knowledge of the relevant flight operations and fulfils the provisions of (2)(ii) to (2)(vi).</p> <p>(iii) An experienced CRM trainer may become a flight crew CRM trainer if he/she demonstrates adequate knowledge of the relevant flight operations and fulfils the provisions of (2)(ii) to (2)(vi).</p>		
53.	ORO.FC.215 AMC3 ORO.FC.115	CRM trainer - Training	✓			<p>(1) Training of flight crew CRM trainers should be both theoretical and practical. Practical elements should include the development of specific trainer skills, particularly the integration of CRM into line operations.</p> <p>(2) The basic training of flight crew CRM trainers should include the training elements for flight crew, as specified in Table 1 of AMC1 ORO.FC.115. In addition, the basic training should include the following:</p> <p>(i) introduction to CRM training;</p>		

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						<p>(ii) operator's management system;</p> <p>(iii) characteristics, as applicable:</p> <p>(A) of the different types of CRM trainings (initial, recurrent, etc.);</p> <p>(B) of combined training; and</p> <p>(C) related to the type of aircraft or operation; and</p> <p>(iv) assessment.</p> <p>(3) The refresher training of flight crew CRM trainers should include new methodologies, procedures and lessons learned.</p> <p>(4) Instructors, holding a certificate in accordance with Part-FCL, who are also CRM trainers, may combine the CRM trainer refresher training with instructor refresher training.</p> <p>(5) Instructors for other-than complex motor-powered aircraft should be qualified as flight crew CRM trainers for this aircraft category with no additional training, as specified in (2) and (3) when:</p> <p>(i) holding a certificate in accordance Part-FCL; and</p> <p>(ii) fulfilling the provisions of (b)(2) or (b)(3).</p> <p>(6) The training of flight crew CRM trainers should be conducted by flight crew CRM trainers with a minimum of 3 years' experience. Assistance may be provided by experts in order to address specific areas.</p>		
54.	<p>ORO.FC.215</p> <p>AMC3 ORO.FC.115</p> <p>GM7 ORO.FC.115</p>	CRM trainer - Assessment	✓			<p>(1) A flight crew CRM trainer should be assessed by the operator when conducting the first CRM training course. This first assessment should be valid for a period of 3 years.</p> <p>(2) The operator should ensure that the process for the assessment is included in the operations manual describing methods for observing, recording, interpreting and debriefing the flight crew CRM trainer. All personnel involved in the assessment must be credible and competent in their role.</p> <p>See GM7 ORO.FC.115</p>		

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55.	ORO.FC.215 AMC3 ORO.FC.115	CRM trainer – Recency and renewal	✓			<p>(1) For recency of the 3-year validity period, the flight crew CRM trainer should:</p> <p>(i) conduct at least 2 CRM training events in any 12-month period;</p> <p>(ii) be assessed within the last 12 months of the 3-year validity period by the operator; and</p> <p>(iii) complete CRM trainer refresher training within the 3-year validity period.</p> <p>(2) The next 3-year validity period should start at the end of the previous period.</p> <p>(3) For renewal, i.e. when a flight crew CRM trainer does not fulfil the provisions of (1), he/she should, before resuming as flight crew CRM trainer:</p> <p>(i) comply with the qualification provisions of (b) and (d); and</p> <p>(ii) complete CRM trainer refresher training.</p>		
56.	GM3 ORO.FC.115	CRM trainer – Minimum times				<p>(i) basic training:</p> <p>(A) 18 training hours for trainees holding an instructor certificate for complex motor-powered aircraft, as specified in Part-FCL, which includes 25-hour training in teaching and learning; or</p> <p>(B) 30 training hours for trainees who do not hold an instructor certificate as specified in (A); and</p> <p>(ii) refresher training: 6 training hours.</p>		
CRM assessment								
57.	AMC1 ORO.FC.115	Assessment of CRM skills	✓			<p>(1) Assessment of CRM skills is the process of observing, recording, interpreting and debriefing crews and crew member's performance using an accepted methodology in the context of the overall performance.</p> <p>(2) The flight crew member's CRM skills should be assessed in the operational environment, but not during CRM training in the non-operational environment. Nevertheless, during training in the non-operational environment, feedback from the</p>		

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						flight crew CRM trainer or from trainees on individual and crew performance may be given to the crew members concerned.		
58.	AMC1 ORO.FC.115	Assessment of CRM skills	✓			The assessment of CRM skills should: (i) include debriefing the crew and the individual crew member; (ii) serve to identify additional training, where needed, for the crew or the individual crew member; and (iii) be used to improve the CRM training system by evaluating de-identified summaries of all CRM assessments.		
59.	AMC1 ORO.FC.115	Assessment of CRM skills	✓			Prior to the introduction of CRM skills assessment, a detailed description of the CRM methodology, including the required CRM standards and the terminology used for the assessment, should be published in the operations manual.		
60.	AMC1 ORO.FC.115	CRM Assessment – Methodology	✓			The assessment should be based on the following principles: (i) only observable behaviours are assessed; (ii) the assessment should positively reflect any CRM skills that result in enhanced safety; and (iii) assessments should include behaviour that results in an unacceptable reduction in safety margin.		
61.	GM6 ORO.FC.115	CRM Assessment – Methodology – NOTECHS	✓			(a) NOTECHS (non-technical skills) is a validated method for assessing flight crew CRM skills. The NOTECHS framework consists of four main categories: (1) Cooperation: Cooperation is the ability to work effectively in a crew. (2) Leadership and managerial skills: Effective leadership and managerial skills help to achieve joint task completion within a motivated, fully functioning team through coordination and persuasiveness. (3) Situation awareness: Situation awareness relates to one's ability to accurately perceive what is in the		

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						<p>flight crew compartment and outside the aircraft. It is also one's ability to comprehend the meaning of different elements in the environment and the projection of their status in the near future.</p> <p>(4) Decision-making: Decision-making is the process of reaching a judgement or choosing an option.</p> <p>(b) Each of the four categories is subdivided into elements and behavioural markers. The elements are specified in Table 1 of GM6 ORO.FC.115 with examples of behavioural markers (effective behaviour). The behavioural markers are assessed by a rating scale to be established by the operator.</p>		
62.	AMC1 ORO.FC.115	Assessment of CRM skills	✓			Operators should establish procedures, including additional training, to be applied in the event that flight crew members do not achieve or maintain the required CRM standards.		
Operator conversion training								
63.	ORO.FC.120	Operator conversion training	✓			<p>(a) In the case of aeroplane or helicopter operations, the flight crew member shall complete the operator conversion training course before commencing unsupervised line flying:</p> <p>(1) when changing to an aircraft for which a new type or class rating is required;</p> <p>(2) when joining an operator.</p> <p>(b) The operator conversion training course shall include training on the equipment installed on the aircraft as relevant to flight crew members' roles.</p>		
64.	ORO.FC.220	Operator conversion training – General	✓			<p>The flight crew member shall complete:</p> <p>(1) the operator proficiency check and the emergency and safety equipment training and checking before commencing line flying under supervision (LIFUS); and</p> <p>(2) the line check upon completion of line flying under supervision. For performance class B aeroplanes, LIFUS may be performed on any aeroplane within the applicable class.</p>		

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65.	AMC1 ORO.FC.220	Operator conversion training – General	✓			<p>The operator conversion training should include, in the following order:</p> <p>(i) ground training and checking, including aircraft systems, and normal, abnormal and emergency procedures;</p> <p>(ii) emergency and safety equipment training and checking, (completed before any flight training in an aircraft commences);</p> <p>(iii) flight training and checking (aircraft and/or FSTD); and</p> <p>(iv) line flying under supervision and line check.</p>		
66.	AMC1 ORO.FC.220	Operator conversion training – General	✓			When the flight crew member has not previously completed an operator's conversion course, he/she should undergo general first-aid training and, if applicable, ditching procedures training using the equipment in water.		
67.	AMC1 ORO.FC.220	Operator conversion training – General	✓			Where the emergency drills require action by the non-handling pilot, the check should additionally cover knowledge of these drills.		
68.	AMC1 ORO.FC.220	Operator conversion training – General	✓			The operator's conversion may be combined with a new type/class rating training as required by LYCARs-Aircrew-FCL.		
69.	ORO.FC.220	Operator conversion training – ZFTT	✓			<p>For aeroplanes, pilots that have been issued a type rating based on a zero flight-time training (ZFTT) course shall:</p> <p>(1) commence line flying under supervision not later than 21 days after the completion of the skill test or after appropriate training provided by the operator. The content of such training shall be described in the OM;</p> <p>(2) complete six take-offs and landings in a FSTD not later than 21 days after the completion of the skill test under the supervision of a type rating instructor for aeroplanes (TRI(A)) occupying the other pilot seat. The number of take-offs and landings may be reduced when credits are defined in the data established in accordance with LYCARs-Aircrew-FCL..</p>		

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						<p>If these take-offs and landings have not been performed within 21 days, the operator shall provide refresher training. The content of such training shall be described in the OM;</p> <p>(3) conduct the first four take-offs and landings of the LIFUS in the aeroplane under the supervision of a TRI(A) occupying the other pilot seat. The number of take-offs and landings may be reduced when credits are defined in the data established in accordance with LYCARs-Aircrew-FCL..</p>		
70.	ORO.FC.220	Operator conversion training – Flying duties	✓			Once an operator conversion course has been commenced, the FCM shall not be assigned to flying duties on another type or class of aircraft until the course is completed or terminated. Crew members operating only performance class B aeroplanes may be assigned to flights on other types of performance class B aeroplanes during conversion courses to the extent necessary to maintain the operation.		
71.	ORO.FC.220	Operator conversion training – Amount of training	✓			The amount of training required by the FCM for the operator's conversion course shall be determined in accordance with the standards of qualification and experience specified in the OM, taking into account his/her previous training and experience.		
72.	AMC1 ORO.FC.220	Operator conversion training – Ground training	✓			<p>(1) Ground training should comprise a properly organised programme of ground instruction supervised by training staff with adequate facilities, including any necessary audio, mechanical and visual aids. Self-study using appropriate electronic learning aids, computer-based training (CBT), etc., may be used with adequate supervision of the standards achieved. However, if the aircraft concerned is relatively simple, unsupervised private study may be adequate if the operator provides suitable manuals and/or study notes.</p> <p>(2) The course of ground instruction should incorporate formal tests on such matters as aircraft systems, performance and flight planning, where applicable.</p>		
73.	AMC1 ORO.FC.220	Operator conversion training – Emergency & safety equipment training and checking	✓			Emergency and safety equipment training should take place in conjunction with cabin/technical crew		

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						undergoing similar training with emphasis on coordinated procedures and two-way communication between the flight crew compartment and the cabin.		
74.	AMC1 ORO.FC.220	Operator conversion training – Emergency & safety equipment training and checking				<p>On the initial conversion course and on subsequent conversion courses as applicable, the following should be addressed:</p> <ul style="list-style-type: none"> (i) Instruction on first-aid in general (initial conversion course only); instruction on first-aid as relevant to the aircraft type of operation and crew complement, including those situations where no cabin crew is required to be carried (initial and subsequent). (ii) Aero-medical topics (hypoxia, hyperventilation, contamination of skin/eyes by aviation fuel or hydraulic or other fluids, hygiene and food poisoning and malaria) (iii) The effect of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment. (iv) Actual fire fighting, using equipment representative of that carried in the aircraft on an actual or simulated fire except that, with Halon extinguishers, an alternative extinguisher may be used. (v) The operational procedures of security, rescue and emergency services. (vi) Survival information appropriate to their areas of operation (e.g. polar, desert, jungle or sea) and training in the use of any survival equipment required to be carried. (vii) A comprehensive drill to cover all ditching procedures where flotation equipment is carried. This should 		

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						<p>include practice of the actual donning and inflation of a life-jacket, together with a demonstration or audio-visual presentation of the inflation of life-rafts and/or slide-rafts and associated equipment. This practice should, on an initial conversion course, be conducted using the equipment in water, although previous certified training with another operator or the use of similar equipment will be accepted in lieu of further wet-drill training.</p> <p>(viii) Instruction on the location of emergency and safety equipment, correct use of all appropriate drills, and procedures that could be required of flight crew in different emergency situations. Evacuation of the aircraft (or a representative training device) by use of a slide where fitted should be included when the operations manual procedure requires the early evacuation of flight crew to assist on the ground.</p>		
75.	AMC1 ORO.FC.220	Operator conversion training – Flight training	✓			Flight training should be conducted to familiarise the flight crew member thoroughly with all aspects of limitations and normal, abnormal and emergency procedures associated with the aircraft and should be carried out by suitably qualified class and type rating instructors and/or examiners. For specific operations, such as steep approaches, ETOPS, or operations based on QFE, additional training should be carried out, based on any additional elements of training defined for the aircraft type in the data in accordance with LYCARs., where they exist.		
76.	AMC1 ORO.FC.220	Operator conversion training – Flight training	✓			In planning flight training on aircraft with a flight crew of two or more, particular emphasis should be placed on the <u>practice of LOFT</u> with emphasis on CRM, and the use of crew coordination procedures, including coping with <u>incapacitation</u> .		

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77.	AMC1 ORO.FC.220	Operator conversion training – Flight training	✓			Normally, the same training and practice in the flying of the aircraft should be given to co-pilots as well as commanders. The 'flight handling' sections of the syllabus for commanders and co-pilots alike should include all the requirements of the operator proficiency check required by ORO.FC.230.		
78.	AMC1 ORO.FC.220	Operator conversion training – Flight training	✓			Unless the type rating training programme has been carried out in an FSTD usable for ZFTT, the training should include at least three take-offs and landings in the aircraft.		
79.	AMC1 ORO.FC.220	Operator conversion training – LIFUS	✓			Following completion of flight training and checking as part of the operator's conversion course, each flight crew member should operate a minimum number of sectors and/or flight hours under the supervision of a flight crew member nominated by the operator.		
80.	AMC1 ORO.FC.220	Operator conversion training – LIFUS	✓			The minimum flight sectors/hours should be specified in the operations manual and should be determined by the following: (i) previous experience of the flight crew member; (ii) complexity of the aircraft; and (iii) the type and area of operation.		
81.	AMC1 ORO.FC.220	Operator conversion training – LIFUS	✓			For performance class B aeroplanes, the amount of LIFUS required is dependent on the complexity of the operations to be performed.		
82.	GM1 ORO.FC.220	Operator conversion training – LIFUS - Aeroplanes				The following minimum figures for details to be flown under supervision are guidelines for operators to use when establishing their individual requirements: (1) turbo-jet aircraft (i) co-pilot undertaking first operator conversion course: (A) total accumulated 100 hours or minimum 40 flight sectors; (ii) co-pilot upgrading to commander: (A) minimum 20 flight sectors when converting to a		

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						new type; (B) minimum 10 flight sectors when already qualified on the aeroplane type.		
83.	AMC1 ORO.FC.220	Operator conversion training – Passenger handling for operations where no cabin crew is required	✓			Other than general training on dealing with people, emphasis should be placed on the following: (1) advice on the recognition and management of passengers who appear or are intoxicated with alcohol, under the influence of drugs or aggressive; (2) methods used to motivate passengers and the crowd control necessary to expedite an aircraft evacuation; and (3) the importance of correct seat allocation with reference to aircraft mass and balance. Particular emphasis should also be given on the seating of special categories of passengers.		
84.	AMC1 ORO.FC.220	Operator conversion training – Discipline and responsibilities, for operations where no cabin crew is required	✓			Emphasis should be placed on discipline and an individual's responsibilities in relation to: (1) his/her ongoing competence and fitness to operate as a crew member with special regard to flight and duty time limitation (FTL) requirements; and (2) security procedures.		
85.	AMC1 ORO.FC.220	Operator conversion training – Passenger briefing/safety demonstrations, for operations where no cabin crew is required	✓			Training should be given in the preparation of passengers for normal and emergency situations.		
86.	ORO.FC.220	Operator conversion training – CRM training	✓			CRM training shall be integrated into the operator conversion training course.		
87.	AMC1 ORO.FC.115	Operator conversion training – CRM training	✓			When the flight crew member undertakes a conversion course with a change of aircraft type or change of operator, elements of CRM training should be integrated into all appropriate phases of the operator's conversion course, as specified in Table 1 of (g) AMC1 ORO.FC.115.		
88.	AMC1 ORO.FC.115&215	Operator conversion training – Use of automation	✓			(1) The operator conversion course should include training in the use and knowledge of automation and in the recognition of systems and human limitations		

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						<p>associated with the use of automation. The operator should therefore ensure that the FCM receives training on:</p> <p>(i) the application of the operations policy concerning the use of automation as stated in the operations manual; and</p> <p>(ii) system and human limitations associated with the use of automation.</p> <p>(2) The objective of this training should be to provide appropriate knowledge, skills and behavioural patterns for managing and operating automated systems. Special attention should be given to how automation increases the need for crews to have a common understanding of the way in which the system performs, and any features of automation that make this understanding difficult.</p>		
89.	AMC1 ORO.FC.220&230	Operator conversion training – Upset prevention & recovery training – Complex motor-powered aeroplanes with a MOPSC of more than 19	✓			<p>Upset prevention training should:</p> <p>(1) consist of ground training and flight training in an FSTD or an aeroplane;</p> <p>(2) include upset prevention elements from Table 1 of AMC1 ORO.FC.220&230 for the conversion training course.</p> <p>The operator should ensure that personnel providing FSTD UPRT are competent and current to deliver the training, and understand the capabilities and limitations of the device used.</p>		
90.	AMC2 ORO.FC.220&230	Operator conversion training – Upset prevention & recovery training – Complex motor-powered aeroplanes with a MOPSC of 19 or less	✓			<p>Upset prevention training should:</p> <p>(1) consist of ground training and flight training in an FSTD or an aeroplane;</p> <p>(2) include upset prevention elements from Table 1 of AMC1 ORO.FC.220&230 for the conversion training course.</p> <p>The operator should ensure that personnel providing FSTD UPRT are competent and current to deliver the training, and understand the capabilities and limitations of the device used.</p>		

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Differences training & familiarisation training								
91.	ORO.FC.125	Differences training and familiarisation training	✓			(a) Flight crew members shall complete differences or familiarisation training when required by Part-FCL and when changing equipment or procedures requiring additional knowledge on types or variants currently operated. (b) The OM shall specify when such differences or familiarisation training is required.		
92.	AMC1 ORO.FC.125	Differences training and familiarisation training	✓			(a) Differences training requires additional knowledge and training on the aircraft or an appropriate training device. It should be carried out: (1) when introducing a significant change of equipment and/or procedures on types or variants currently operated; and (2) in the case of aeroplanes, when operating another variant of an aeroplane of the same type or another type of the same class currently operated; or (3) in the case of helicopters, when operating a variant of a helicopter currently operated. (b) Familiarisation training requires only the acquisition of additional knowledge. It should be carried out when: (1) operating another helicopter or aeroplane of the same type; or (2) when introducing a significant change		
Recurrent training & checking								
93.	ORO.FC.130	Recurrent training and checking	✓			(a) Each FCM shall complete annual recurrent flight and ground training relevant to the type or variant of aircraft on which he/she operates, including training on the location and use of all emergency and safety equipment carried. (b) Each FCM shall be periodically checked to demonstrate competence in carrying out normal, abnormal and emergency procedures.		

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94.	ORO.FC.230	Recurrent training and checking	✓			Each FCM shall complete recurrent training and checking relevant to the type or variant of aircraft on which they operate.		
95.	ORO.FC.230	Recurrent training and checking	✓			Each FCM shall undergo ground training and flight training in an FSTD or an aircraft, or a combination of FSTD and aircraft training, at least every 12 calendar months.		
96.	AMC1 ORO.FC.230	Recurrent training and checking	✓			For operations with other-than-complex motor-powered aeroplanes, all training and checking should be relevant to the type of operation and class of aeroplane on which the flight crew member operates with due account taken of any specialised equipment used.		
97.	ORO.FC.230	Recurrent training and checking - Validity	✓			The validity periods of OPC, LC and E&SE checking shall be counted from the end of the month when the check was taken. When the training or checks are undertaken within the last 3 months of the validity period, the new validity period shall be counted from the original expiry date.		
98.	AMC1 ORO.FC.230	Recurrent training and checking – Helicopters	✓			In the case of single-pilot operations with helicopters, the OPC, LC and E&SE checking should be performed in the single-pilot role on a particular helicopter type in an environment representative of the operation.		
99.	AMC1 ORO.FC.230	Recurrent training and checking – Use of FSTD	✓			Training and checking provide an opportunity to practice abnormal/emergency procedures that rarely arise in normal operations and should be part of a structured programme of recurrent training. This should be carried out in an FSTD whenever possible.		
100.	AMC1 ORO.FC.230	Recurrent training and checking – Use of FSTD	✓			The line check should be performed in the aircraft. All other training and checking should be performed in an FSTD, or, if it is not reasonably practicable to gain access to such devices, in an aircraft of the same type or in the case of emergency and safety equipment training, in a representative training device. The type of equipment used for training and checking should be representative of the instrumentation, equipment and layout of the aircraft type operated by the FCM.		

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101.	AMC1 ORO.FC.230	Recurrent training and checking – Use of FSTD	✓			Because of the unacceptable risk when simulating emergencies such as engine failure, icing problems, certain types of engine(s) (e.g. during continued take-off or go-around, total hydraulic failure), or because of environmental considerations associated with some emergencies (e.g. fuel dumping) these emergencies should preferably be covered in an FSTD. If no FSTD is available, these emergencies may be covered in the aircraft using a safe airborne simulation, bearing in mind the effect of any subsequent failure, and the exercise must be preceded by a comprehensive briefing.		
102.	AMC1 ORO.FC.230	Recurrent training and checking – Ground training	✓			(i) The ground training programme should include: (A) aircraft systems (which systems are covered and when); (B) operational procedures and requirements, including ground de-icing/anti-icing and pilot incapacitation; and (C) accident/incident and occurrence review. (ii) Knowledge of the ground training should be verified by a questionnaire or other suitable methods. (iii) When the ground training is conducted within 3 calendar months prior to the expiry of the 12 calendar months period, the next ground and refresher training should be completed within 12 calendar months of the original expiry date of the previous training.		
103.	AMC1 ORO.FC.230	Recurrent training and checking – Ground training – Personnel	✓			Ground training should be provided by suitably qualified personnel.		
104.	AMC1 ORO.FC.230	Recurrent training and checking – Aircraft/FSTD training	✓			The aircraft/FSTD training programme should be established in a way that all major failures of aircraft systems and associated procedures will have been covered in the preceding 3 year period. (which failure and when, which failures are major for the A/C considered)		
105.	AMC1 ORO.FC.230	Recurrent training and checking – Aircraft/FSTD training	✓			When engine-out manoeuvres are carried out in an aircraft, the engine failure should be simulated.		

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106.	AMC1 ORO.FC.230	Recurrent training and checking – Aircraft/FSTD training	✓			Aircraft/FSTD training may be combined with the operator proficiency check.		
107.	AMC1 ORO.FC.230	Recurrent training and checking – Aircraft/FSTD training	✓			When the aircraft/FSTD training is conducted within 3 calendar months prior to the expiry of the 12 calendar months period, the next aircraft/FSTD training should be completed within 12 calendar months of the original expiry date of the previous training.		
108.	AMC1 ORO.FC.230	Recurrent training and checking – Aircraft/FSTD training – Helicopters	✓			(A) Where a suitable FSTD is available, it should be used for the aircraft/FSTD training programme. If the operator is able to demonstrate, on the basis of a compliance and risk assessment, that using an aircraft for this training provides equivalent standards of training with safety levels similar to those achieved using an FSTD, the aircraft may be used for this training to the extent necessary. (B) The recurrent training should include the following additional items, which should be completed in an FSTD: - settling with power and vortex ring; - loss of tail rotor effectiveness.		
109.	AMC1 ORO.FC.230	Recurrent training and checking – Aircraft/FSTD training – Personnel	✓			Aircraft/FSTD training should be provided by a flight instructor (FI), type rating instructor (TRI) or class rating instructor (CRI) or, in the case of the FSTD content, a synthetic flight instructor (SFI), providing that the FI, TRI, CRI or SFI satisfies the operator's experience and knowledge requirements sufficient to instruct on the required items.		
110.	ORO.FC.230	Recurrent training and checking – OPC	✓			Each FCM shall complete OPCs as part of the <u>normal crew complement</u> to demonstrate competence in carrying out normal, abnormal and emergency procedures.		
111.	ORO.FC.230	Recurrent training and checking – OPC – IFR	✓			When the flight crew member will be required to operate under IFR, the operator proficiency check shall be conducted without external visual reference, as appropriate.		
112.	ORO.FC.230	Recurrent training and checking – OPC – Validity	✓			The validity period of the operator proficiency check shall be six calendar months. The proficiency check		

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						shall be undertaken before commencing CAT operations.		
113.	ORO.FC.230	Recurrent training and checking – OPC – Validity VFR day	✓			For operations under VFR by day of performance class B aeroplanes conducted during seasons not longer than 8 consecutive months, one OPC shall be sufficient.		
114.	ORO.FC.230	Recurrent training and checking – OPC – Helicopter	✓			The FCM involved in operations by day and over routes navigated by reference to visual landmarks with an other-than-complex motor-powered helicopter may complete the OPC in only one of the relevant types held. The OPC shall be performed each time on the type least recently used for the proficiency check. The relevant helicopter types that may be grouped for the purpose of the OPC shall be contained in the OM.		
115.	ORO.FC.230	Recurrent training and checking – OPC – Helicopter + aeroplanes class b	✓			For operations of other-than-complex motor-powered helicopters by day and over routes navigated by reference to visual landmarks and performance class B aeroplanes, the check may be conducted by a suitably qualified commander nominated by the operator, trained in CRM concepts and the assessment of CRM skills. The operator shall inform the competent authority about the persons nominated.		
116.	AMC1 ORO.FC.230	Recurrent training and checking – OPC	✓			Once every 12 months the OPC may be combined with the proficiency check for revalidation or renewal of the aircraft type rating.		
117.	AMC1 ORO.FC.230	Recurrent training and checking – OPC	✓			Operator proficiency checks should be conducted by a type rating examiner (TRE) or a synthetic flight examiner (SFE), as applicable.		
118.	AMC1 ORO.FC.230	Recurrent training and checking – OPC – Aeroplanes	✓			Where applicable, operator proficiency checks should include the following manoeuvres as pilot flying: (A) rejected take-off when an FSTD is available to represent that specific aeroplane, otherwise touch drills only; (B) take-off with engine failure between V1 and V2 (take-off safety speed) or, if carried out in an aeroplane, at a safe speed above V2;		

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						<p>(C) 3D approach operation to minima with, in the case of multi-engine aeroplanes, one-engine-inoperative;</p> <p>(D) 2D approach operation to minima;</p> <p>(E) at least one of the 3D or 2D approach operations should be an RNP APCH or RNP AR APCH operation;</p> <p>(F) missed approach on instruments from minima with, in the case of multi-engined aeroplanes, one-engine-inoperative;</p> <p>(G) landing with one-engine-inoperative. For single-engine aeroplanes a practice forced landing is required.</p>		
119.	AMC1 ORO.FC.230	Recurrent training and checking – OPC – Helicopters	✓			<p>(A) Where applicable, operator proficiency checks should include the abnormal/emergency procedures listed in AMC1 ORO.FC.230.</p> <p>(B) For pilots required to engage in IFR operations, proficiency checks include the additional abnormal/emergency procedures listed in AMC1 ORO.FC.230.</p>		
120.	AMC1 ORO.FC.230	Recurrent training and checking – OPC – Helicopters	✓			(C) Before a flight crew member without a valid instrument rating is allowed to operate in VMC at night, he/she should be required to undergo a proficiency check at night. Thereafter, each second proficiency check should be conducted at night.		
121.	AMC1 ORO.FC.230	Recurrent training and checking – OPC – Personnel	✓			OPC should be provided by a type rating examiner (TRE), class rating examiner (CRE) or, if the check is conducted in an FSTD, a TRE, CRE or a synthetic flight examiner (SFE), trained in CRM concepts and the assessment of CRM skills.		
122.	AMC1 ORO.FC.220&230	Operator recurrent training – Upset prevention & recovery training – Complex motor-powered aeroplanes with a MOPSC of more than 19	✓			<p><u>Upset prevention training should:</u></p> <p>(1) consist of ground training and flight training in an FSTD or an aeroplane;</p> <p>(2) include upset prevention elements in Table 1 of AMC1 ORO.FC.220&230 for the recurrent training programme at least every 12 calendar months, such that all the elements are covered over a period not</p>		

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						<p>exceeding 3 years.</p> <p><u>Upset recovery training should:</u></p> <p>(1) consist of ground training and flight training in an FFS qualified for the training task;</p> <p>(2) be completed from each seat in which a pilot's duties require him/her to operate; and</p> <p>(3) include the recovery exercises in Table 2 AMC1 ORO.FC.220&230 for the recurrent training programme, such that all the exercises are covered over a period not exceeding 3 years.</p> <p>The operator should ensure that personnel providing FSTD UPRT are competent and current to deliver the training, and understand the capabilities and limitations of the device used.</p>		
123.	AMC2 ORO.FC.220&230	Operator recurrent training – Upset prevention & recovery training – Complex motor-powered aeroplanes with a MOPSC of 19 or less	✓			<p><u>Upset prevention training should:</u></p> <p>(1) consist of ground training and flight training in an FSTD or an aeroplane;</p> <p>(2) include upset prevention elements in Table 1 of AMC1 ORO.FC.220&230 for the recurrent training programme at least every 12 calendar months, such that all the elements are covered over a period not exceeding 3 years.</p> <p><u>Upset recovery training should:</u></p> <p>(1) consist of ground training and flight training in an FFS qualified for the training task; if available</p> <p>(2) be completed from each seat in which a pilot's duties require him/her to operate; and</p> <p>(3) include the recovery exercises in Table 2 AMC1 ORO.FC.220&230 for the recurrent training programme, such that all the exercises are covered over a period not exceeding 3 years.</p> <p>The operator should ensure that personnel providing FSTD UPRT are competent and current to deliver the training, and understand the capabilities and limitations of the device used.</p>		

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124.	ORO.FC.230	Recurrent training and checking – Line check	✓			Each flight crew member shall complete a line check on the aircraft to demonstrate competence in carrying out normal line operations described in the OM. The validity period of the line check shall be 12 calendar months.		
125.	ORO.FC.230	Recurrent training and checking – Line check	✓			Line checks may be conducted by a suitably qualified commander nominated by the operator, trained in CRM concepts and the assessment of CRM skills.		
126.	AMC1 ORO.FC.230	Recurrent training and checking – Line check	✓			Line checks should establish the ability to perform satisfactorily a complete line operation, including pre-flight and post-flight procedures and use of the equipment provided, as specified in the operations manual. The route chosen should be such as to give adequate representation of the scope of a pilot's normal operations. When weather conditions preclude a manual landing, an automatic landing is acceptable. The commander, or any pilot who may be required to relieve the commander, should also demonstrate his/her ability to 'manage' the operation and take appropriate command decisions.		
127.	AMC1 ORO.FC.230	Recurrent training and checking – Line check	✓			CRM assessment alone should not be used as a reason for a failure of the line check.		
128.	AMC1 ORO.FC.230	Recurrent training and checking – Line check	✓			When pilots are assigned duties as pilot flying and pilot monitoring, they should be checked in both functions.		
129.	AMC1 ORO.FC.230	Recurrent training and checking – Line check – Personnel	✓			Line checks should be conducted by a commander nominated by the operator. The operator should inform the competent authority about the persons nominated. The person conducting the line check should occupy an observer's seat where installed. His/her CRM assessments should solely be based on observations made during the initial briefing, cabin briefing, flight crew compartment briefing and those phases where he/she occupies the observer's seat.		
130.	AMC1 ORO.FC.230	Recurrent training and checking – Line check – Aeroplanes	✓			In the case of long haul operations where additional operating flight crew are carried, the person may fulfil the function of a cruise relief pilot and should		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						not occupy either pilot's seat during take-off, departure, initial cruise, descent, approach and landing.		
131.	AMC1 ORO.FC.230	Recurrent training and checking – Line check	✓			Where a pilot is required to operate as pilot flying and pilot monitoring, he/she should be checked on one flight sector as pilot flying and on another flight sector as pilot monitoring. However, where the operator's procedures require integrated flight preparation, integrated cockpit initialisation and that each pilot performs both flying and monitoring duties on the same sector, then the line check may be performed on a single flight sector.		
132.	ORO.FC.230	Recurrent training and checking – Emergency & safety equipment training & checking	✓			Each FCM shall complete training and checking on the location and use of all emergency and safety equipment carried. The validity period of an emergency and safety equipment check shall be 12 calendar months.		
133.	AMC1 ORO.FC.230	Recurrent training and checking – Emergency & safety equipment training	✓			(i) Emergency and safety equipment training may be combined with emergency and safety equipment checking and should be conducted in an aircraft or a suitable alternative training device.		
134.	AMC1 ORO.FC.230	Recurrent training and checking – Emergency & safety equipment training	✓			(ii) <u>Every year</u> the emergency and safety equipment training programme should include the following: (A) actual donning of a life-jacket, where fitted; (B) actual donning of protective breathing equipment, where fitted; (C) actual handling of fire extinguishers of the type used; (D) instruction on the location and use of all emergency and safety equipment carried on the aircraft; (E) instruction on the location and use of all types of exits; (F) security procedures.		
135.	AMC1 ORO.FC.230	Recurrent training and checking – Emergency & safety equipment training	✓			(iii) <u>Every 3 years</u> the programme of training should include the following:		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<p>(A) actual operation of all types of exits;</p> <p>(B) demonstration of the method used to operate a slide where fitted;</p> <p>(C) actual fire-fighting using equipment representative of that carried in the aircraft on an actual or simulated fire except that, with Halon extinguishers, an alternative extinguisher may be used;</p> <p>(D) the effects of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment;</p> <p>(E) actual handling of pyrotechnics, real or simulated, where applicable;</p> <p>(F) demonstration in the use of the life-rafts where fitted. In the case of helicopters involved in extended over water operations, demonstration and use of the life-rafts.</p> <p>(G) particularly in the case where no cabin crew is required, first-aid, appropriate to the aircraft type, the kind of operation and crew complement.</p>		
136.	AMC1 ORO.FC.230	Recurrent training and checking – Emergency & safety equipment training	✓			(iv) The successful resolution of aircraft emergencies requires interaction between flight crew and cabin/technical crew and emphasis should be placed on the importance of effective coordination and two-way communication between all crew members in various emergency situations.		
137.	AMC1 ORO.FC.230	Recurrent training and checking –Emergency & safety equipment training	✓			(v) Emergency and safety equipment training should include joint practice in aircraft evacuations so that all who are involved are aware of the duties other crew members should perform. When such practice is not possible, combined flight crew and cabin/technical crew training should include joint discussion of emergency scenarios.		
138.	AMC1 ORO.FC.230	Recurrent training and checking – Emergency & safety equipment training	✓			(vi) Emergency and safety equipment training should, as far as practicable, take place in conjunction with cabin/technical crew undergoing similar training with emphasis on coordinated procedures and two-way communication between the flight crew		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						compartment and the cabin.		
139.	AMC1 ORO.FC.230	Recurrent training and checking – Emergency & safety equipment training – Personnel	✓			Emergency & safety equipment training should be provided by suitably qualified personnel.		
140.	AMC1 ORO.FC.230	Recurrent training and checking – Emergency & safety equipment checking	✓			The items to be checked should be those for which training has been carried out.		
141.	AMC1 ORO.FC.230	Recurrent training and checking – Emergency & safety equipment checking – Personnel	✓			Emergency & safety equipment checking should be provided by suitably qualified personnel.		
142.	AMC1 ORO.FC.230	Recurrent training and checking – Flight crew incapacitation training (except single pilot operations)	✓			(1) Procedures should be established to train flight crew to recognise and handle flight crew incapacitation. This training should be conducted every year and can form part of other recurrent training. It should take the form of classroom instruction, discussion, audio-visual presentation or other similar means. (2) If an FSTD is available for the type of aircraft operated, practical training on flight crew incapacitation should be carried out at intervals not exceeding 3 years.		
143.	ORO.FC.230	Recurrent training and checking – CRM training	✓			(1) Elements of CRM shall be integrated into all appropriate phases of the recurrent training. (2) Each FCM shall undergo specific modular CRM training. All major topics of CRM training shall be covered by distributing modular training sessions as evenly as possible over each three-year period.		
144.	AMC1 ORO.FC.230 AMC1 ORO.FC.115	Recurrent training and checking – CRM training	✓			Elements of CRM training, as specified in Table 1 of AMC1 ORO.FC.115, should be integrated into all appropriate phases of recurrent training.		
145.	AMC1 ORO.FC.115	Recurrent training and checking – CRM training	✓			(1) Annual recurrent CRM training should be provided in such a way that all CRM training elements specified for the annual recurrent training in Table 1 of (g) AMC1 ORO.FC.115 are covered over a period not exceeding 3 years. (2) Operators should update their CRM recurrent training programme over a period not exceeding 3 years. The revision of the programme should take into account information from the operator's management system including the results of the CRM		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						assessment.		
146.	AMC1 ORO.FC.115	CRM – Combined training	✓			<p>(i) Operators should provide combined training for flight crew, cabin crew and technical crew during recurrent CRM training.</p> <p>(ii) The combined training should address at least:</p> <p>(A) effective communication, coordination of tasks and functions of flight crew, cabin crew and technical crew; and</p> <p>(B) mixed multinational and cross-cultural flight crew, cabin crew and technical crew, and their interaction, if applicable.</p> <p>(iii) The combined training should be expanded to include medical passengers, if applicable to the operation.</p> <p>(iv) Combined CRM training should be conducted by flight crew CRM trainer or cabin crew CRM trainer.</p> <p>(v) There should be an effective liaison between flight crew, cabin crew and technical crew training departments. Provision should be made for transfer of relevant knowledge and skills between flight crew, cabin crew and technical crew CRM trainers.</p>		
147.	GM3 ORO.FC.115	CRM – Combined training – Minimum times				Combined CRM training: 6 training hours over a period of 3 years;		
Either seat qualification								
148.	ORO.FC.135	Pilot qualification to operate in either pilot's seat	✓			FCM who may be assigned to operate in either pilot's seat shall complete appropriate training and checking as specified in the OM.		
149.	ORO.FC.235	Pilot qualification to operate in either pilot's seat – Commander	✓			Commanders whose duties require them to operate in either pilot seat and carry out the duties of a co-pilot, or commanders required to conduct training or checking duties, shall complete additional training and checking as specified in the OM. The check may be conducted together with the OPC.		
150.	ORO.FC.235	Pilot qualification to operate in either pilot's seat – Commander	✓			The additional training and checking shall include at least the following:		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						(1) an engine failure during take-off; (2) a one-engine-inoperative approach and go-around; and (3) a one-engine-inoperative landing.		
151.	ORO.FC.235	Pilot qualification to operate in either pilot's seat – Commander	✓			When operating in the co-pilot's seat, the checks required by ORO.FC.230 for operating in the commander's seat shall, in addition, be valid and current.		
152.	ORO.FC.235	Pilot qualification to operate in either pilot's seat – Commander – Helicopters	✓			Commanders shall also complete their proficiency checks from left- and right-hand seats, on alternate proficiency checks, provided that when the type rating proficiency check is combined with the OPC the commander completes his/her training or checking from the normally occupied seat.		
153.	AMC1 ORO.FC.235(d)	Pilot qualification to operate in either pilot's seat – Commander – Helicopters	✓			In the case of single-engined helicopters, the autorotative landing should be carried out from left- and right-hand seats on alternate proficiency checks.		
154.	ORO.FC.235	Pilot qualification to operate in either pilot's seat	✓			When engine-out manoeuvres are carried out in an aircraft, the engine failure shall be simulated.		
155.	ORO.FC.235	Pilot qualification to operate in either pilot's seat – Co-pilot	✓			The pilot relieving the commander shall have demonstrated, concurrent with the OPC, practice of drills and procedures that would not, normally, be his/her responsibility. Where the differences between left- and right-hand seats are not significant, practice may be conducted in either seat.		
156.	ORO.FC.235	Pilot qualification to operate in either pilot's seat – Co-pilot	✓			The pilot other than the commander occupying the commander's seat shall demonstrate practice of drills and procedures, concurrent with the OPC, which are the commander's responsibility acting as pilot monitoring. Where the differences between left- and right-hand seats are not significant, practice may be conducted in either seat.		
Operation on more than one type or variant								

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
157.	ORO.FC.140	Operation on more than one type or variant				(a) FCM operating more than one type or variant of aircraft shall comply with the requirements prescribed in ORO.FC for each type or variant, unless credits related to the training, checking, and recent experience requirements are defined in the data established in accordance with LYCARs or the relevant types or variants. (b) Appropriate procedures and/or operational restrictions shall be specified in the OM for any operation on more than one type or variant.		
158.	ORO.FC.240	Operation on more than one type or variant	✓			The procedures or operational restrictions for operation on more than one type or variant established in the OM and approved by the competent authority shall cover: (1) the flight crew members' minimum experience level; (2) the minimum experience level on one type or variant before beginning training for and operation of another type or variant; (3) the process whereby flight crew qualified on one type or variant will be trained and qualified on another type or variant; and (4) all applicable recent experience requirements for each type or variant.		
159.	ORO.FC.240	Operation on more than one type or variant	✓			Such limitations shall not apply to operations of performance class B aeroplane if they are limited to single-pilot classes of reciprocating engine aeroplanes under VFR by day.		
160.	AMC1 ORO.FC.240	Operation on more than one type or variant – Aeroplanes	✓			Check that requirements of AMC1 ORO.FC.240 (a) and AMC2 ORO.FC.240 are fulfilled.		
161.	AMC1 ORO.FC.240	Operation on more than one type or variant – Helicopters	✓			Check that requirements of AMC1 ORO.FC.240 (b) and AMC2 ORO.FC.240 are fulfilled.		
162.	ORO.FC.240	Operation on more than one type or variant	✓			When a FCM operates both helicopters and aeroplanes, that flight crew member shall be limited to operations on only one type of aeroplane and one type of helicopter.		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
163.	ORO.FC.240	Operation on more than one type or variant	✓			Such limitations with helicopters shall not apply to operations of performance class B aeroplane if they are limited to single-pilot classes of reciprocating engine aeroplanes.		
164.	AMC1 ORO.FC.240	Operation on more than one type or variant – Aeroplane + Helicopter	✓			Check that requirements of AMC1 ORO.FC.240 (c) are fulfilled.		
Commanders holding a CPL								
165.	ORO.FC.A.250	Commanders holding a CPL - Aeroplane				<p>The holder of a CPL(A) shall only act as commander in CAT on a single-pilot aeroplane if:</p> <p>(1) when carrying passengers under VFR outside a radius of 50 NM (90 km) from an aerodrome of departure, he/she has a minimum of 500 hours of flight time on aeroplanes or holds a valid instrument rating (not for operations under VFR by day); or</p> <p>(2) when operating on a multi-engine type under IFR, he/she has a minimum of 700 hours of flight time on aeroplanes, including 400 hours as pilot-in-command. These hours shall include 100 hours under IFR and 40 hours in multi-engine operations. The 400 hours as pilot-in-command may be substituted by hours operating as co-pilot within an established multi-pilot crew system prescribed in the operations manual, on the basis of two hours of flight time as co-pilot for one hour of flight time as pilot-in command.</p>		
166.	ORO.FC.H.250	Commanders holding a CPL - Helicopters				<p>(a) The holder of a CPL(H) (helicopter) shall only act as commander in CAT on a single-pilot helicopter if:</p> <p>(1) when operating under IFR, he/she has a minimum of 700 hours total flight time on helicopters, including 300 hours as pilot-in-command. These hours shall include 100 hours under IFR. The 300 hours as pilot-in-command may be substituted by hours operating as co-pilot within an established multi-pilot crew system prescribed in the OM on the basis of two hours of flight time as co-pilot for one hour flight time as pilot-in command;</p> <p>(2) when operating under visual meteorological conditions (VMC) at night, he/she has:</p>		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						(i) a valid instrument rating; or (ii) 300 hours of flight time on helicopters, including 100 hours as pilot-in-command and 10 hours as pilot flying at night.		
Single-pilot operations under IFR or at night								
167.	ORO.FC.202	Single-pilot operations under IFR or at night				The operator shall include in the OM a pilot's conversion and recurrent training programme that includes the additional requirements for a single-pilot operation. The pilot shall have undertaken training on the operator's procedures, in particular regarding: (1) engine management and emergency handling; (2) use of normal, abnormal and emergency checklist; (3) air traffic control (ATC) communication; (4) departure and approach procedures; (5) autopilot management, if applicable; (6) use of simplified in-flight documentation; (7) single-pilot crew resource management.		
168.	ORO.FC.202	Single-pilot operations under IFR or at night				The recurrent checks required by ORO.FC.230 shall be performed in the single-pilot role on the relevant type or class of aircraft in an environment representative of the operation.		
169.	ORO.FC.202	Single-pilot operations under IFR or at night – Aeroplane under IFR				For aeroplane operations under IFR the pilot shall have: (1) a minimum of 50 hours flight time under IFR on the relevant type or class of aeroplane, of which 10 hours are as commander; and (2) completed during the preceding 90 days on the relevant type or class of aeroplane: (i) five IFR flights, including three instrument approaches, in a single-pilot role; or (ii) an IFR instrument approach check.		
170.	ORO.FC.202	Single-pilot operations under IFR or at night – Aeroplane at				For aeroplane operations at night the pilot shall have:		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
		night				<p>(1) a minimum of 15 hours flight time at night which may be included in the 50 hours flight time under IFR; and</p> <p>(2) completed during the preceding 90 days on the relevant type or class of aeroplane:</p> <p>(i) three take-offs and landings at night in the single pilot role; or</p> <p>(ii) a night take-off and landing check.</p>		
171.	ORO.FC.202	Single-pilot operations under IFR or at night – Helicopter under IFR				<p>For helicopter operations under IFR the pilot shall have:</p> <p>(1) 25 hours total IFR flight experience in the relevant operating environment; and</p> <p>(2) 25 hours flight experience as a single pilot on the specific type of helicopter, approved for single-pilot IFR, of which 10 hours may be flown under supervision, including five sectors of IFR line flying under supervision using the single-pilot procedures; and</p> <p>(3) completed during the preceding 90 days:</p> <p>(i) five IFR flights as a single pilot, including three instrument approaches, carried out on a helicopter approved for this purpose; or</p> <p>(ii) an IFR instrument approach check as a single pilot on the relevant type of helicopter, flight training device (FTD) or full flight simulator (FFS).</p>		
MEL Training								
172.	ORO.GEN.110(e) AMC1 ORO.GEN.110(e)	MEL Training programme				<p>The operator should develop a training programme for crew members and detail such training in the Operations Manual. Such training programme should include:</p> <p>(1) the scope, extent and use of the MEL;</p> <p>(2) the operator's MEL procedures;</p> <p>(3) elementary maintenance procedures in accordance with LYCARs ; and</p>		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						(4) pilot-in-command/commander responsibilities		
ACAS/TCAS training								
173.	AUR.ACAS.2010 ICAO Doc 9863	ACAS – Training				Operators shall establish ACAS II operational procedures and training programmes so that the flight crew is appropriately trained in the avoidance of collisions and competent in the use of ACAS II equipment.		
174.	AUR.ACAS.2010 ICAO Doc 9863	ACAS – Training programme				-Theory of operation -ACAS limitations -Operating procedures Including: crew coordination and communications with ATC -ACAS manoeuver training including: TA responses RA responses -ACAS initial evaluation -Recurrent training		
PBN training								
175.	CAT.OP.MPA.126	PBN Training – General				For operations where a navigation specification for performance-based navigation (PBN) has been prescribed and no specific approval is required in accordance with SPA.PBN.100, the operator should specify the flight crew qualification and proficiency constraints and ensure that the training programme for relevant personnel is consistent with the intended operation.		
176.	JAA TGL10	Training programme – P-RNAV				P-RNAV training should cover: - Normal procedures - Contingency procedures Simulator training & checks should include departures and arrivals using P-RNAV procedures. Subject to be covered: - Theory of RNAV including differences		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						between B-RNAV, P-RNAV, RNP-RNAV - Limitations of RNAV - Charting, database and avionics issues including waypoint naming concepts - RNAV path terminator concepts and especially the use of the CF & TF path terminator - Fly-by and fly-over waypoints - Use of RNAV equipment including: <ul style="list-style-type: none"> o Retrieving a procedure from the database o Verification and sensor management o Tactically modifying the flight plan o Addressing discontinuities o Entering data such as wind, altitude, speed constraints, vertical profile, vertical speed o Flying the procedure o Use LNAV mode and lateral control techniques o Use VNAV mode and vertical control techniques o Use of AP, FD and AT at different stages of the procedure - RT phraseology for RNAV - Implications for RNAV operations of system malfunctions which are not RNAV related		
177.	CAT.OP.MPA.126 FAA Order 8400.33	Training programme – RNP 4				The following items should be included in flight crew training programmes:		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
	ICAO Doc 9997					<ul style="list-style-type: none"> - equipment requirements, - normal and non-normal operations and flight procedures, - limits of their navigation capability for operations in RNP-4 oceanic and remote area operations 		
178.	CAT.OP.MPA.126 AMC 20-12 ICAO Doc 9997	Training programme – RNP 10				<p>The following items should be included in flight crew training programmes:</p> <ul style="list-style-type: none"> - equipment requirements, - normal and non-normal operations and flight procedures, - limits of their navigation capability for operations in RNP-10 oceanic and remote area operations - GNSS principles related to en-route navigation 		
179.	CAT.OP.MPA.126 AMC 20-27/28	Training programme – RNP APCH – Initial theoretical				<p>The theoretical RNP APCH training shall be given by adequately qualified personnel (GI, TRI,...) and shall be tailored to the operator's approved operations. Therefore, a generic theoretical training is not sufficient and shall be completed by a specific operator module (including aircraft type specificities).</p> <p>This training shall include at least:</p> <p>RNAV Approach concept:</p> <ul style="list-style-type: none"> - Theory of RNAV including different types of RNAV operations - Limitations of RNAV and BARO-VNAV - Charting and database (waypoint naming, vertical path angle, fly-by and fly-over waypoint) - Use of RNAV equipment (verification & sensor management, entering data,...) - Use of lateral nav mode (and lateral control techniques) 		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<ul style="list-style-type: none"> - Use of vertical nav mode (and vertical control techniques) - R/T phraseology for RNAV operations - Implications for RNAV ops of system malfunction which are not RNAV related <p>RNP Approach concept (including LPV):</p> <ul style="list-style-type: none"> - Definition of RNP APCH operations - Regulatory requirements for RNP APCH (including LPV) - Required navigation equipment for RNP APCH (GNSS, SBAS, RAIM, BARO-VNAV, MEL,...) - Procedures characteristics (minima, chart depiction,...) - Retrieving adequate procedure from database - Procedure changes (destination, arrival, alternate,...) - Flying the procedure (use of A/P, FD, auto throttle, lateral and vertical path management,...) - Specificities for BARO-VNAV and LPV - Effect of temperature deviation and its compensation - ATC procedures - Abnormal and contingency procedures 		
180.	CAT.OP.MPA.126 AMC 20-27/28	Training programme – RNP APCH – Initial Practical				<p>The practical RNP APCH training shall be given by adequately qualified personnel (SFI, TRI,...) and shall be tailored to the operator's approved operations. The practical training shall be performed in a flight simulator when technically available.</p> <p>This training shall include at least:</p> <ul style="list-style-type: none"> - Programming RNAV approaches including 		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<ul style="list-style-type: none"> database and sensor checking - Cockpit display management - Use of nav charts - Application of SOPs and abnormal procedures as described in OM A and B - Flying the RNP APCH procedure with full and partial flight guidance systems - Lateral & vertical approach path management (fly direct to a waypoint, interception of a of initial or intermediate segment,...) - Use of other a/c equipment to support track monitoring, weather and obstacle avoidance - Interception of the extended final approach segment (if applicable) - Determining lateral & vertical track deviation/error - Contingency procedures (LNAV/VNAV failure, sensor failure...) - Check RNP/ANP and RAIM - Missed approach procedures (conventional and RNAV) - Adherence to speed and/or altitude constraints - Abnormal procedures 		
181.	SPA.PBN.105	Training programme – RNP AR APCH				RNP AR APCH is addressed in a separate checklist.		
MNPS training								
182.	SPA.MNPS.105 NAT Doc 007	Training programme – MNPS				The training programme should include: <ul style="list-style-type: none"> - instructions on the efficient use of equipment with emphasis on how to avoid mistakes 		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<ul style="list-style-type: none"> - develop a meticulous method of using Control Display Units (CDUs), with careful cross-checking at all operational stages - the need for maintaining accuracy along and across track (i.e. the careful application of Mach Number Technique, accurate reporting of positions and the use of accurate time in reporting positions) - knowledge and understanding of standard ATC phraseology used in each area of operations - importance of crew members cross-checking each other to ensure that ATC clearances are promptly and correctly complied with - use and limitations, in terms of accuracy, of standby altimeters during contingency situations. Where applicable, the pilot should review the application of Static Source Error Correction/Position Error Correction (SSEC/PEC) through the use of correction cards - characteristics of aircraft altitude capture systems which may lead to the occurrence of overshoots - relationships between the altimetry, automatic altitude control and transponder systems in normal and abnormal situations - aircraft operating restrictions related to airworthiness approval - familiarity with the recommendations to reduce oceanic errors as contained in the current version of the "Oceanic Errors Safety Bulletin (OESB)" published by ICAO EUR/NAT Office as a NAT Operations Bulletin 		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<ul style="list-style-type: none"> - instruction on what action should be considered in the event of systems failures - Lessons to be learned (ICAO Nat Doc 007 §15.4) 		
RVSM training								
183.	SPA.RVSM.105 AMC2 SPA.RVSM.105	Training programme – RVSM				<p>The training programme should include:</p> <ul style="list-style-type: none"> - knowledge and understanding of standard ATC phraseology used in each area of operations; - importance of crew members cross-checking to ensure that ATC clearances are promptly and correctly complied with; - use and limitations in terms of accuracy of standby altimeters in contingencies. Where applicable, the pilot should review the application of static source error correction/position error correction through the use of correction cards; such correction data should be available on the flight deck; - problems of visual perception of other aircraft at 300 m (1 000 ft) planned separation during darkness, when encountering local phenomena such as northern lights, for opposite and same direction traffic, and during turns; - characteristics of aircraft altitude capture systems that may lead to overshoots; - relationship between the aircraft's altimetry, automatic altitude control and transponder systems in normal and abnormal conditions; and - any airframe operating restrictions, if required for the specific aircraft group, related to RVSM airworthiness approval. 		
LVO training								

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
184.	SPA.LVO.120	LVO training and qualifications	✓			<p>The operator shall ensure that, prior to conducting an LVO:</p> <p>(a) each flight crew member:</p> <p>(1) complies with the training and checking requirements prescribed in the operations manual, including flight simulation training device (FSTD) training, in operating to the limiting values of RVR/VIS (visibility) and DH specific to the operation and the aircraft type;</p> <p>(2) is qualified in accordance with the standards prescribed in the operations manual;</p> <p>(b) the training and checking is conducted in accordance with a detailed syllabus.</p>		
185.	AMC1 SPA.LVO.120	LVO training and qualifications – Experience – CAT II	✓			<p>Before commencing CAT II operations, the following additional provisions should be applicable to commanders, or pilots to whom conduct of the flight may be delegated, <u>who are new to the aircraft type or class</u>:</p> <p>(i) 50 hours or 20 sectors on the type, including LIFUS; and</p> <p>(ii) 100 m should be added to the applicable CAT II RVR minima when the operation requires a CAT II manual landing or use of HUDLS to touchdown until:</p> <p>(A) a total of 100 hours or 40 sectors, including LIFUS, has been achieved on the type; or</p> <p>(B) a total of 50 hours or 20 sectors, including LIFUS, has been achieved on the type where the flight crew member has been previously qualified for CAT II manual landing operations with an EU operator;</p> <p>(C) for HUDLS operations the sector provisions should always be applicable; the hours on type or class do not fulfil the provisions.</p>		
186.	AMC1 SPA.LVO.120	LVO training and qualifications – Experience – CAT III	✓			<p>Before commencing CAT III operations, the following additional provisions should be applicable to commanders, or pilots to whom conduct of the flight</p>		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<p>may be delegated, <u>who are new to the aircraft type:</u></p> <p>(i) 50 hours or 20 sectors on the type, including LIFUS; and</p> <p>(ii) 100 m should be added to the applicable CAT II or CAT III RVR minima unless he/she has previously qualified for CAT II or III operations with an EU operator, until a total of 100 hours or 40 sectors, including LIFUS, has been achieved on the type.</p> <p>For HUDLS operations the sector provisions should always be applicable; the hours on type or class do not fulfil the provisions.</p>		
Ground Training								
187.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Ground training	✓			<p>The initial ground training course for LVO should include at least the following:</p> <p>(1) characteristics and limitations of the ILS and/or MLS;</p> <p>(2) characteristics of the visual aids;</p> <p>(3) characteristics of fog;</p> <p>(4) operational capabilities and limitations of the particular airborne system to include HUD symbology and EVS characteristics, if appropriate;</p> <p>(5) effects of precipitation, ice accretion, low level wind shear and turbulence;</p> <p>(6) effect of specific aircraft/system malfunctions;</p> <p>(7) use and limitations of RVR assessment systems;</p> <p>(8) principles of obstacle clearance requirements;</p> <p>(9) recognition of and action to be taken in the event of failure of ground equipment;</p> <p>(10) procedures and precautions to be followed with regard to surface movement during operations when the RVR is 400 m or less and any additional procedures required for take-off in conditions below 150 m (200 m for category D aeroplanes);</p> <p>(11) significance of DHs based upon radio altimeters</p>		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						and the effect of terrain profile in the approach area on radio altimeter readings and on the automatic approach/landing systems; (12) importance and significance of alert height, if applicable, and the action in the event of any failure above and below the alert height; (13) qualification requirements for pilots to obtain and retain approval to conduct LVOs; and (14) importance of correct seating and eye position.		
188.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with</u> CAT II/III experience with Community operator – Ground training	✓			Abbreviated ground training course if operating a different type or class from that on which the previous CAT II or CAT III experience was gained.		
189.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with</u> CAT II/III experience <u>with the operator</u> – Ground training	✓			Abbreviated ground training course if operating a different type or class from that on which the previous CAT II or CAT III experience was gained.		
Simulator Training								
190.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			FSTD and/or flight training for LVO should include at least: (i) checks of satisfactory functioning of equipment, both on the ground and in flight; (ii) effect on minima caused by changes in the status of ground installations; (iii) monitoring of: (A) automatic flight control systems and auto-land status annunciators with emphasis on the action to be taken in the event of failures of such systems; and (B) HUD/HUDLS/EVS guidance status and annunciators as appropriate, to include head-down displays; (iv) actions to be taken in the event of failures such as engines, electrical systems, hydraulics or flight control systems; (v) the effect of known unserviceabilities and use of MELs;		

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						(vi) operating limitations resulting from airworthiness certification; (vii) guidance on the visual cues required at DH together with information on maximum deviation allowed from glide path or localiser; and (viii) the importance and significance of alert height if applicable and the action in the event of any failure above and below the alert height.		
191.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			FCM should be trained to carry out their duties and instructed on the coordination required with other crew members. Maximum use should be made of suitably equipped FSTDs for this purpose.		
192.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			Training should be divided into phases covering normal operation with no aircraft or equipment failures but including all weather conditions that may be encountered and detailed scenarios of aircraft and equipment failure that could affect CAT II or III operations. If the aircraft system involves the use of hybrid or other special systems, such as HUD/HUDLS or enhanced vision equipment, then FCM should practise the use of these systems in normal and abnormal modes during the FSTD phase of training.		
193.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			Incapacitation procedures appropriate to LVTO, CAT II and CAT III operations should be practised.		
194.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			For aircraft with no FSTD available to represent that specific aircraft, operators should ensure that the flight training phase specific to the visual scenarios of CAT II operations is conducted in a specifically approved FSTD. Such training should include a minimum of 4 approaches. Thereafter, the training and procedures that are type specific should be practised in the aircraft.		
195.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			Initial CAT II and III training should include at least the following exercises: (i) approach using the appropriate flight guidance, autopilots and control systems installed in the aircraft, to the appropriate DH and to include		

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						<p>transition to visual flight and landing;</p> <p>(ii) approach with all engines operating using the appropriate flight guidance systems, autopilots, HUDLS and/or EVS and control systems installed in the aircraft down to the appropriate DH followed by missed approach - all without external visual reference;</p> <p>(iii) where appropriate, approaches utilising automatic flight systems to provide automatic flare, hover, landing and rollout; and</p> <p>(iv) normal operation of the applicable system both with and without acquisition of visual cues at DH.</p>		
196.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			<p>Subsequent phases of training should include at least:</p> <p>(i) approaches with engine failure at various stages on the approach;</p> <p>(ii) approaches with critical equipment failures, such as electrical systems, auto flight systems, ground and/or airborne ILS, MLS systems and status monitors;</p> <p>(iii) approaches where failures of auto flight equipment and/or HUD/HUDLS/EVS at low level require either:</p> <p>(A) reversion to manual flight to control flare, hover, landing and rollout or missed approach; or</p> <p>(B) reversion to manual flight or a downgraded automatic mode to control missed approaches from, at or below DH including those which may result in a touchdown on the runway;</p> <p>(iv) failures of the systems that will result in excessive localiser and/or glideslope deviation, both above and below DH, in the minimum visual conditions specified for the operation. In addition, a continuation to a manual landing should be practised if a head-up display forms a downgraded mode of the automatic system or the head-up display forms the only flare mode; and</p> <p>(v) failures and procedures specific to aircraft type or</p>		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						variant.		
197.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			The training programme should provide practice in handling faults which require a reversion to higher minima.		
198.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			The training programme should include the handling of the aircraft when, during a <u>fail-passive CAT III approach</u> , the fault causes the autopilot to disconnect at or below DH when the last reported RVR is 300 m or less.		
199.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			Where take-offs are conducted in RVRs of 400 m and below, training should be established to cover systems failures and engine failure resulting in continued as well as rejected take-offs.		
200.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			The training programme should include, where appropriate, approaches where failures of the HUDLS and/or EVS equipment at low level require either: (i) reversion to head down displays to control missed approach; or (ii) reversion to flight with no, or downgraded, HUDLS guidance to control missed approaches from DH or below, including those which may result in a touchdown on the runway.		
201.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			When undertaking LVTO, LTS CAT I, OTS CAT II, CAT II and CAT III operations utilising a HUD/HUDLS, hybrid HUD/HUDLS or an EVS, the training and checking programme should include, where appropriate, the use of the HUD/HUDLS in normal operations during all phases of flight.		
202.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			A minimum of 6, respectively 8 for HUDLS with or without EVS, approaches and/or landings in an FSTD. The provisions for 8 HUDLS approaches may be reduced to 6 when conducting hybrid HUDLS operations.		
203.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			Where no FSTD is available to represent that specific aircraft, a minimum of 3, respectively 5 for HUDLS and/or EVS, approaches including at least 1 missed approach procedure is required on the aircraft.		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						For hybrid HUDLS operations a minimum of 3 approaches is required, including at least 1 missed approach procedure.		
204.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator training	✓			Appropriate additional training if any special equipment is required such as HUD or enhanced vision equipment. When approach operations utilising EVS are conducted with an RVR of less than 800 m, a minimum of 5 approaches, including at least 1 missed approach procedure are required on the aircraft.		
205.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with</u> CAT II/III experience with Community operator – Simulator training	✓			<p>Abbreviated ground, FSTD and/or flight training course if operating the same type or class and variant of the same type or class on which the previous CAT II or CAT III experience was gained.</p> <p>The abbreviated course should include at least a minimum of 6, respectively 8 for HUDLS with or without EVS, approaches and/or landings in an FSTD.</p> <p>The provisions for 8 HUDLS approaches may be reduced to 6 when conducting hybrid HUDLS operations.</p> <p>The operator may reduce the number of approaches/landings required if the type/class or the variant of the type or class has the same or similar:</p> <p>(A) level of technology - flight control/guidance system (FGS);</p> <p>(B) operating procedures;</p> <p>(C) handling characteristics;</p> <p>(D) use of HUDLS/hybrid HUDLS; and</p> <p>(E) use of EVS,</p> <p>as the previously operated type or class, otherwise the provisions above should be met.</p>		
206.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with</u> CAT II/III experience <u>with the operator</u> – Simulator training	✓			When changing aircraft type or class, the abbreviated course should include at least a minimum of 6, respectively 8 for HUDLS with or without EVS, approaches and/or landings in an FSTD.		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<p>The provisions for 8 HUDLS approaches may be reduced to 6 when conducting hybrid HUDLS operations.</p> <p>When changing to a different variant of aircraft within the same type or class rating that has the same or similar: (A) level of technology - FGS; (B) operating procedures - integrity; (C) handling characteristics; (D) use of HUDLS/Hybrid HUDLS; and (E) use of EVS, as the previously operated type or class, a difference course or familiarisation appropriate to the change of variant should fulfil the abbreviated course provisions.</p>		
207.	AMC1 SPA.LVO.120	LVO training and qualifications – LTS CAT I – Simulator training	✓			During conversion training the total number of approaches should not be additional to the requirements in ORO.FC provided the training is conducted utilising the lowest applicable RVR.		
208.	AMC1 SPA.LVO.120	LVO training and qualifications – OTS CAT II – Simulator training	✓			During conversion training the total number of approaches should not be less than those to complete CAT II training utilising a HUD/HUDLS.		
209.	AMC1 SPA.LVO.120	LVO training and qualifications – EVS operations – Simulator training	✓			During conversion training the total number of approaches required should not be less than that required to complete CAT II training utilising a HUD.		
Simulator Checking								
210.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with no</u> CAT II/III experience – Simulator checking	✓			<p>The operator should ensure that each flight crew member completes a check before conducting CAT II or III operations.</p> <p>This check may be replaced by successful completion of the FSTD and/or flight training specified above.</p>		
211.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with</u> CAT II/III experience with Community operator – Simulator checking	✓			The operator should ensure that each flight crew member completes a check before conducting CAT II or III operations.		
212.	AMC1 SPA.LVO.120	LVO training and qualifications – FCM <u>with</u> CAT II/III experience <u>with the operator</u> – Simulator checking	✓			The operator should ensure that each flight crew member completes a check before conducting CAT II or III operations.		
LIFUS								

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
213.	AMC1 SPA.LVO.120	LVO training and qualifications – LIFUS – CAT II	✓			For CAT II when a manual landing or a HUDLS approach to touchdown is required, a minimum of: (A) three landings from autopilot disconnect; and (B) four landings with HUDLS used to touchdown, except that only one manual landing, respectively two using HUDLS, to touchdown is required when the simulator training has been carried out in an FSTD qualified for zero flight time conversion.		
214.	AMC1 SPA.LVO.120	LVO training and qualifications – LIFUS – CAT III	✓			For CAT III, a minimum of 2 auto-lands, except that: (A) only one auto-land is required when the simulator training has been carried out in an FSTD qualified for zero flight time conversion; (B) no auto-land is required during LIFUS when the simulator training has been carried out in an FSTD qualified for zero flight time (ZFT) conversion and the flight crew member successfully completed the ZFT type rating conversion course; and (C) the flight crew member, trained and qualified in accordance with (B), is qualified to operate during the conduct of LIFUS to the lowest approved DA/H and RVR as stipulated in the operations manual. For CAT III approaches using HUDLS to touchdown, a minimum of four approaches.		
Recurrent training & checking								
215.	AMC1 SPA.LVO.120	LVO recurrent training and checking	✓			The required number of approaches to be undertaken in the FSTD within the validity period of the OPC should be a minimum of 2 (4 when HUDLS and/or EVS is utilised to touchdown), 1 of which should be a landing at the lowest approved RVR. In addition 1 (2 for HUDLS and/or operations utilising EVS) of these approaches may be substituted by an approach and landing in the aircraft using approved CAT II and CAT III procedures. One missed approach should be flown during the conduct of an OPC.		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						If the operator is approved to conduct take-off with RVR less than 150 m, at least one LVTO to the lowest applicable minima should be flown during the conduct of the OPC.		
216.	AMC1 SPA.LVO.120	LVO recurrent training and checking – CAT III	✓			For CAT III operations on aircraft with a fail-passive flight control system, including HUDLS, a missed approach should be completed by each FCM at least once over the period of three consecutive OPCs as the result of an autopilot failure at or below DH when the last reported RVR was 300 m or less.		
217.	AMC1 SPA.LVO.120	LVO recurrent training and checking – LTS CAT I	✓			During recurrent training and checking the operator may also combine the separate requirements provided the above operational procedure provision is met and at least one approach using LTS CAT I minima is conducted at least once every 18 months.		
218.	AMC1 SPA.LVO.120	LVO recurrent training and checking – OTS CAT II	✓			During recurrent training and checking the operator may also combine the separate provisions provided the above operational procedure provision is met and at least one approach using OTS CAT II minima is conducted at least once every 18 months.		
219.	AMC1 SPA.LVO.120	LVO recurrent training and checking – EVS operations	✓			During recurrent training and checking the operator may also combine the separate provisions provided the above operational procedure provision is met and at least one approach utilising EVS is conducted at least once every 12 months.		
LVTO								
220.	AMC1 SPA.LVO.120	LVTO training	✓			<p>Prior to conducting take-offs in RVRs below 400 m, the flight crew should undergo the following training:</p> <p>(i) normal take-off in minimum approved RVR conditions;</p> <p>(ii) take-off in minimum approved RVR conditions with an engine failure:</p> <p>(A) for aeroplanes between V1 and V2 (take-off safety speed), or as soon as safety considerations permit;</p> <p>(B) for helicopters at or after take-off decision point (TDP); and</p> <p>(iii) take-off in minimum approved RVR conditions with an engine failure:</p>		

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						(A) for aeroplanes before V1 resulting in a rejected take-off; and (B) for helicopters before the TDP.		
221.	AMC1 SPA.LVO.120	LVTO training – RVR below 150m	✓			The operator approved for LVTOs with an RVR below 150 m should ensure that the training above is carried out in an FSTD. This training should include the use of any special procedures and equipment.		
222.	AMC1 SPA.LVO.120	LVTO checking – RVR below 150m	✓			The operator should ensure that a FCM has completed a check before conducting LVTO in RVRs of less than 150 m. The check may be replaced by successful completion of the FSTD training above on conversion to an aircraft type.		
ETOPS training								
223.	SPA.ETOPS.105 AMC 20-6	ETOPS training programme – Introduction to ETOPS				<ul style="list-style-type: none"> a. Brief overview of the history of ETOPS; b. ETOPS regulations; c. Definitions; d. Approved One-Engine-Inoperative Cruise Speed; e. ETOPS Type Design Approval – a brief synopsis; f. Maximum approved diversion times and time-limited systems capability; g. Operator’s Approved Diversion Time; h. Routes and aerodromes intended to be used in the ETOPS area of operations; i. ETOPS Operations Approval; j. ETOPS Area and Routes; k. ETOPS en-route alternates aerodromes including all available let-down aids; l. Navigation systems accuracy, limitations and operating procedures; m. Meteorological facilities and availability of information; n. In-flight monitoring procedures; 		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<p>o. Computerised Flight Plan;</p> <p>p. Orientation charts, including low level planning charts and flight progress charts usage (including position plotting);</p> <p>q. Equal Time Point;</p> <p>r. Critical fuel.</p>		
224.	SPA.ETOPS.105 AMC 20-6	ETOPS training programme – Normal operations				<p>a. Flight planning and Dispatch</p> <p>(1) ETOPS Fuel requirements</p> <p>(2) Route Alternate selection - weather minima</p> <p>(3) Minimum Equipment List – ETOPS specific</p> <p>(4) ETOPS service check and Tech log</p> <p>(5) Pre-flight FMS Set up</p> <p>b. Flight performance progress monitoring</p> <p>(1) Flight management, navigation and communication systems</p> <p>(2) Aeroplane system monitoring</p> <p>(3) Weather monitoring</p> <p>(4) In-flight fuel management – to include independent cross checking of fuel quantity</p>		
225.	SPA.ETOPS.105 AMC 20-6	ETOPS training programme – abnormal & contingency procedures				<p>a. Diversion Procedures and Diversion ‘decision making’.</p> <p>Initial and recurrent training to prepare flight crews to evaluate potential significant system failures. The goal of this training should be to establish crew competency in dealing with the most probable contingencies. The discussion should include the factors that may require medical, passenger related or non-technical diversions.</p> <p>b. Navigation and communication systems, including appropriate flight management devices in degraded modes.</p> <p>c. Fuel Management with degraded systems.</p>		

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						<p>d. Initial and recurrent training which emphasises abnormal and emergency procedures to be followed in the event of foreseeable failures for each area of operation, including:</p> <p>(1) Procedures for single and multiple failures in flight affecting ETOPS sector entry and diversion decisions. If standby sources of electrical power significantly degrade the cockpit instrumentation to the pilots, then training for approaches with the standby generator as the sole power source should be conducted during initial and recurrent training.</p> <p>(2) Operational restrictions associated with these system failures including any applicable MEL considerations.</p>		
226.	SPA.ETOPS.105 AMC 20-6	ETOPS training programme – abnormal & contingency procedures				<p>During the introduction into service of a new ETOPS type, or conversion of pilots not previously ETOPS qualified where ETOPS approval is sought, a minimum of 2 ETOPS sectors should be completed including an ETOPS line check.</p> <p>ETOPS subjects should also be included in annual refresher training as part of the normal process.</p>		
SET-IMC training								
227.	SPA.SET-IMC.105 AMC1 SPA.SET-IMC.105(c)	SET-IMC training programme – Use of FFS/FSTD				<p>Where a suitable full flight simulator (FFS) or a suitable flight simulation training device (FSTD) is available, it should be used to carry out training and checking for SET-IMC operations conversion training and checking.</p> <p>Following conversion training and checking, the next recurrent training session and the next OPCs including SET-IMC operations items should be conducted in a suitable FFS or FSTD, where available.</p>		
228.	SPA.SET-IMC.105 AMC1 SPA.SET-IMC.105(c)	SET-IMC training programme – Conversion Training				<p>Conversion training should be conducted in accordance with a syllabus devised for SET-IMC operations and include at least the following:</p> <p>(1) normal procedures:</p> <p>(i) anti-icing and de-icing systems operation;</p>		

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						(ii) navigation system procedures; (iii) radar positioning and vectoring, when available; (iv) use of radio altimeter; and (v) use of fuel control, displays interpretation; (2) abnormal procedures: (i) anti-icing and de-icing systems failures; (ii) navigation system failures; (iii) pressurisation system failures; (iv) electrical system failures; and (v) engine-out descent in simulated IMC; and (3) emergency procedures: (i) engine failure shortly after take-off; (ii) fuel system failures (e.g. fuel starvation); (iii) engine failure other than the above: recognition of failure, symptoms, type of failure, measures to be taken, and consequences; (iv) depressurisation; and (v) engine restart procedures: (A) choice of an aerodrome or landing site; and (B) use of an area navigation system; (vi) air traffic controller (ATCO) communications; (vii) use of radar positioning and vectoring (when available); (viii) use of radio altimeter; and (ix) practice of the forced landing procedure until touchdown in simulated IMC, with zero thrust set, and operating with simulated emergency electrical power.		
229.	SPA.SET-IMC.105	SET-IMC training programme – Conversion Checking				The following items should be checked following completion of the SET-IMC operations conversion		

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	AMC1 SPA.SET-IMC.105(c)					training as part of the operator's proficiency check (OPC): (1) conduct of the forced landing procedure until touchdown in simulated IMC, with zero thrust set, and operating with simulated emergency electrical power; (2) engine restart procedures; (3) depressurisation following engine failure; and (4) engine-out descent in simulated IMC.		
230.	SPA.SET-IMC.105 AMC1 SPA.SET-IMC.105(c)	SET-IMC training programme – Recurrent Training				Recurrent training for SET-IMC operations should be included in the recurrent training required by ORO.FC for pilots carrying out SET-IMC operations. This training should include all items of the conversion training.		
231.	SPA.SET-IMC.105 AMC1 SPA.SET-IMC.105(c)	SET-IMC training programme – Recurrent Checking				The following items should be included into the list of required items to be checked following completion of SET-IMC operations recurrent training as part of the OPC: (1) conduct of the forced landing procedure until touchdown in simulated IMC, with zero thrust set, and operating with simulated emergency electrical power; (2) engine restart procedures; (3) depressurisation following engine failure; and (4) emergency descent in simulated IMC.		
NVIS training								
232.	SPA.NVIS.130	NVIS Operations - Experience				The minimum experience for the commander shall not be less than 20 hours VFR at night as commander of a helicopter before commencing training.		
233.	SPA.NVIS.130	NVIS Operations – Operational training				All pilots shall have completed the operational training in accordance with the NVIS procedures contained in the operations manual.		
234.	SPA.NVIS.130	NVIS Operations – Recency				All pilots and NVIS technical crew members conducting NVIS operations shall have completed three NVIS flights in the last 90 days. Recency may be		

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						re-established on a training flight in the helicopter or an approved full flight simulator (FFS)		
235.	SPA.NVIS.130	NVIS Operations – Training & checking				<p>Crew training programmes shall: improve knowledge of the NVIS working environment and equipment; improve crew coordination; and include measures to minimise the risks associated with entry into low visibility conditions and NVIS normal and emergency procedures.</p> <p>It shall be assessed during:</p> <p>(A) night proficiency checks; and</p> <p>(B) line checks.</p>		
236.	SPA.NVIS.130 AMC1 SPA.NVIS.130(f)(1)	NVIS Training & checking programme - Training				<p>The flight crew training syllabus should include the following items:</p> <p>(1) NVIS working principles, eye physiology, vision at night, limitations and techniques to overcome these limitations;</p> <p>(2) preparation and testing of NVIS equipment;</p> <p>(3) preparation of the helicopter for NVIS operations;</p> <p>(4) normal and emergency procedures including all NVIS failure modes;</p> <p>(5) maintenance of unaided night flying;</p> <p>(6) crew coordination concept specific to NVIS operations;</p> <p>(7) practice of the transition to and from NVG procedures;</p> <p>(8) awareness of specific dangers relating to the operating environment; and</p> <p>(9) risk analysis, mitigation and management.</p> <p>See GMs SPA.NVIS.130(f) for more details.</p>		
237.	SPA.NVIS.130 AMC1 SPA.NVIS.130(f)(1)	NVIS Training & checking programme - Checking				<p>The flight crew checking syllabus should include:</p> <p>(1) night proficiency checks, including emergency procedures to be used on NVIS operations; and</p> <p>(2) line checks with special emphasis on the</p>		

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						following: (i) local area meteorology; (ii) NVIS flight planning; (iii) NVIS in-flight procedures; (iv) transitions to and from night vision goggles (NVG); (v) normal NVIS procedures; and (vi) crew coordination specific to NVIS operations. See GMs SPA.NVIS.130(f) for more details.		
HHO training								
238.	SPA.HHO.130	HHO Operations - Experience				The minimum experience level for the commander conducting HHO flights shall not be less than: (1) Offshore: (i) 1 000 hours as pilot-in-command/commander of helicopters, or 1 000 hours as co-pilot in HHO of which 200 hours is as pilot-in-command under supervision; and (ii) 50 hoist cycles conducted offshore, of which 20 cycles shall be at night if night operations are being conducted, where a hoist cycle means one down-and-up cycle of the hoist hook. (2) Onshore: (i) 500 hours as pilot-in-command/commander of helicopters, or 500 hours as co-pilot in HHO of which 100 hours is as pilot-in-command under supervision; (ii) 200 hours operating experience in helicopters gained in an operational environment similar to the intended operation; and (iii) 50 hoist cycles, of which 20 cycles shall be at night		

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						if night operations are being conducted.		
239.	SPA.HHO.130	HHO Operations – Operational training & experience				Successful completion of training in accordance with the HHO procedures contained in the operations manual and relevant experience in the role and environment under which HHO are conducted.		
240.	SPA.HHO.130	HHO Operations – Recency				All pilots and HHO crew members conducting HHO shall have completed in the last 90 days: (1) when operating by day: any combination of three day or night hoist cycles, each of which shall include a transition to and from the hover; (2) when operating by night: three night hoist cycles, each of which shall include a transition to and from the hover.		
241.	SPA.HHO.130	HHO Operations – Training & checking				Crew training programmes shall: improve knowledge of the HHO working environment and equipment; improve crew coordination; and include measures to minimise the risks associated with HHO normal and emergency procedures and static discharge. It shall be assessed during visual meteorological conditions (VMC) day proficiency checks, or VMC night proficiency checks when night HHO are undertaken by the operator.		
242.	AMC1 SPA.HHO.130(f)(1)	HHO Operations – Training & checking programme – Training				The flight crew training syllabus should include the following items: (1) fitting and use of the hoist; (2) preparing the helicopter and hoist equipment for HHO; (3) normal and emergency hoist procedures by day and, when required, by night; (4) crew coordination concepts specific to HHO; (5) practice of HHO procedures; and (6) the dangers of static electricity discharge.		
243.	AMC1 SPA.HHO.130(f)(1)	HHO Operations – Training & checking programme – Checking				The flight crew checking syllabus should include: (1) proficiency checks, which should include		

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						<p>procedures likely to be used at HHO sites with special emphasis on:</p> <p>(i) local area meteorology;</p> <p>(ii) HHO flight planning;</p> <p>(iii) HHO departures;</p> <p>(iv) a transition to and from the hover at the HHO site;</p> <p>(v) normal and simulated emergency HHO procedures; and</p> <p>(vi) crew coordination.</p>		
HEMS training								
244.	SPA.HEMS.130	HEMS Operations - Experience				<p>The minimum experience level for the commander conducting HEMS flights shall not be less than:</p> <p>(1) either:</p> <p>(i) 1 000 hours as pilot-in-command/commander of aircraft of which 500 hours are as pilot-in-command/commander on helicopters; or</p> <p>(ii) 1 000 hours as co-pilot in HEMS operations of which 500 hours are as pilot-in-command under supervision and 100 hours pilot-in-command/commander of helicopters;</p> <p>(2) 500 hours' operating experience in helicopters, gained in an operational environment similar to the intended operation; and</p> <p>(3) for pilots engaged in night operations, 20 hours of VMC at night as pilot-in-command/commander.</p>		
245.	SPA.HEMS.130	HEMS Operations – Operational training & experience				Successful completion of operational training in accordance with the HEMS procedures contained in the operations manual.		

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246.	SPA.HEMS.130	HEMS Operations – Recency				All pilots conducting HEMS operations shall have completed a minimum of 30 minutes' flight by sole reference to instruments in a helicopter or in an FSTD within the last 6 months.		
247.	SPA.HEMS.130	HEMS Operations – Training & checking				Crew training programmes shall: improve knowledge of the HEMS working environment and equipment; improve crew coordination; and include measures to minimise the risks associated with en-route transit in low visibility conditions, selection of HEMS operating sites and approach and departure profiles. It shall be assessed during: (A) VMC day proficiency checks, or VMC night proficiency checks when night HEMS operations are undertaken by the operator; and (B) line checks.		
248.	AMC1 SPA.HEMS.130(f)(1)	HHO Operations – Training & checking programme – Training				The flight crew training syllabus should include the following items: (1) meteorological training concentrating on the understanding and interpretation of available weather information; (2) preparing the helicopter and specialist medical equipment for subsequent HEMS departure; (3) practice of HEMS departures; (4) the assessment from the air of the suitability of HEMS operating sites; and (5) the medical effects air transport may have on the patient.		
249.	AMC1 SPA.HEMS.130(f)(1)	HHO Operations – Training & checking programme – Checking				(1) proficiency checks, which should include landing and take-off profiles likely to be used at HEMS operating sites; and (2) line checks, with special emphasis on the following: (i) local area meteorology; (ii) HEMS flight planning;		

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						(iii) HEMS departures; (iv) the selection from the air of HEMS operating sites; (v) low level flight in poor weather; and (vi) familiarity with established HEMS operating sites in the operator's local area register.		
2.2 CABIN CREW								
Conduct of training & checking								
250.	ORO.CC.115	Training course – General – Programme & syllabus	✓			A detailed programme and syllabus shall be established by the operator for each training course in accordance with ORO.CC and Part-CC, where applicable, to cover the duties and responsibilities to be discharged by the CCM.		
251.	ORO.CC.115	Training course – General	✓			Each training course shall include theoretical and practical instruction together with individual or collective practice, as relevant to each training subject, in order that the CCM achieves and maintains the adequate level of proficiency in accordance with ORO.CC.		
252.	ORO.CC.115	Training course – General	✓			Each training course shall be: (1) conducted in a structured and realistic manner; and (2) performed by personnel appropriately qualified for the subject to be covered.		
253.	AMC1 ORO.CC.115(c)	Training course – General – Training methods	✓			The operator should establish training methods that take into account the following: (1) training should include the use of cabin training devices, audio-visual presentations, computer-based training and other types of training, as most appropriate to the training element; and (2) a reasonable balance between the different training methods should be ensured so that the cabin crew member achieves the level of proficiency necessary for a safe performance of all related cabin		

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						crew duties and responsibilities.		
254.	AMC1 ORO.CC.115(c)	Training course – General – Training devices	✓			<p>When assessing the representative training devices to be used, the operator should:</p> <p>(1) take into account that a representative training device may be used to train cabin crew as an alternative to the use of the actual aircraft or required equipment;</p> <p>(2) ensure that those items relevant to the training and checking intended to be given accurately represent the aircraft or equipment in the following particulars:</p> <p>(i) layout of the cabin in relation to doors/exits, galley areas and safety and emergency equipment stowage as relevant;</p> <p>(ii) type and location of passenger seats and cabin crew stations;</p> <p>(iii) doors/exits in all modes of operation, particularly in relation to the method of operation, mass and balance and operating forces, including failure of power-assist systems where fitted; and</p> <p>iv) safety and emergency equipment of the type provided in the aircraft (such equipment may be 'training use only' items and, for oxygen and protective breathing equipment, units charged with or without oxygen may be used);</p> <p>(3) assess the following factors when determining whether a door/exit can be considered to be a variant of another type:</p> <p>(i) door/exit arming/disarming;</p> <p>(ii) direction of movement of the operating handle;</p> <p>(iii) direction of door/exit opening;</p> <p>(iv) power-assist mechanisms; and</p> <p>(v) assisting evacuation means such as slides and ropes.</p>		
255.	ORO.CC.115	Training course – General – Checking	✓			During or following completion of all training required		

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						by ORO.CC, each cabin crew member shall undergo a check covering all training elements of the relevant training programme, except for CRM training. Checks shall be performed by personnel appropriately qualified to verify that the CCM has achieved and/or maintains the required level of proficiency.		
256.	AMC1 ORO.CC.115(d)	Training course – General – Checking				<p>(a) Checking required for each training course should be accomplished by the method appropriate to the training element to be checked. These methods include:</p> <p>(1) practical demonstration;</p> <p>(2) computer-based assessment;</p> <p>(3) in-flight checks;</p> <p>(4) oral or written tests.</p> <p>(b) Training elements that require individual practical participation may be combined with practical checks.</p>		
CRM - Generalities								
257.	ORO.CC.115	CRM Training	✓			CRM training courses and CRM modules where applicable shall be conducted by a cabin crew CRM instructor. When CRM elements are integrated in other training, a cabin crew CRM instructor shall manage the definition and implementation of the syllabus.		
258.	AMC1 ORO.CC.115(e)	Training course – General – CRM	✓			The table 1 of AMC1 ORO.CC.115(e) defines the content of CRM trainings.		
259.	AMC1 ORO.CC.115(e)	CRM - Training environment	✓			<p>CRM training should be conducted in the non-operational environment (classroom and computer-based) and in the operational environment (cabin training device and aircraft). Tools such as group discussions, team task analysis, team task simulation and feedback should be used.</p> <p>Whenever possible, classroom training should be conducted in a group session away from the pressures of the usual working environment, so that the opportunity is provided for cabin crew members to interact and communicate in an environment</p>		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<p>conducive to learning.</p> <p>Computer-based training should not be conducted as a stand-alone training method, but may be conducted as a complementary training method.</p> <p>Whenever practicable, relevant parts of CRM training should be conducted in representative cabin training devices that reproduce a realistic operational environment, or in the aircraft. During practical training, interaction should be encouraged.</p> <p>CRM principles should be integrated into relevant parts of cabin crew training and operations including checklists, briefings and emergency procedures.</p>		
260.	AMC1 ORO.CC.115(e)	CRM – Management system	✓			CRM training should address hazards and risks identified by the operator's management system described in ORO.GEN.200.		
261.	AMC1 ORO.CC.115(e)	CRM – Competency-based	✓			Whenever practicable, the compliance-based approach concerning CRM training may be substituted by a competency-based approach such as evidence-based training. In this context, CRM training should be characterised by a performance orientation, with emphasis on standards of performance and their measurement, and the development of training to the specified performance standards.		
262.	AMC1 ORO.CC.115(e)	CRM – Contracted CRM training	✓			If the operator chooses not to establish its own CRM training, another operator, a third party or a training organisation may be contracted to provide the training in accordance with ORO.GEN.205. In case of contracted CRM training, the operator should ensure that the content of the course covers the specific culture, the type of operations and the associated procedures of the operator. When crew members from different operators attend the same course, the CRM training should be specific to the relevant flight operations and to the trainees concerned.		
263.	AMC1 ORO.CC.115(e) GM4 ORO.CC.115(e)	CRM – Syllabus – Resilience development	✓			CRM training should address the main aspects of resilience development. The training should cover: (i) Mental flexibility		

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						<p>Cabin crew should be trained to:</p> <p>(A) understand that mental flexibility is necessary to recognise critical changes;</p> <p>(B) reflect on their judgement and adjust it to the unique situation;</p> <p>(C) avoid fixed prejudices and over-reliance on standard solutions; and</p> <p>(D) remain open to changing assumptions and perceptions.</p> <p>(ii) Performance adaptation</p> <p>Cabin crew should be trained to:</p> <p>(A) mitigate frozen behaviours, overreactions and inappropriate hesitation; and</p> <p>(B) adjust actions to current conditions.</p> <p>See GM4 ORO.CC.115(e) for more details.</p>		
264.	AMC1 ORO.CC.115(e)	CRM – Syllabus – Surprise and startle effect	✓			CRM training should address unexpected, unusual and stressful situations. Therefore, CRM training should be designed to prepare cabin crew to master sudden events and associated uncontrolled reactions.		
265.	AMC1 ORO.CC.115(e)	CRM – Syllabus – Cultural differences	✓			<p>CRM training should cover cultural differences of multinational and cross-cultural crews.</p> <p>This includes recognising that:</p> <p>(i) different cultures may have different communication specifics, ways of understanding and approaches to the same situation or problem;</p> <p>(ii) difficulties may arise when crew members with different mother tongue communicate in a common language which is not their mother tongue; and</p> <p>(iii) cultural differences may lead to different methods for identifying a situation and solving a problem.</p>		
266.	AMC1 ORO.CC.115(e)	CRM – Syllabus – Operator’s safety culture and company culture	✓			CRM training should cover the operator’s safety culture, its company culture, the type of operations and the associated procedures of the operator. This		

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						should include areas of operations that may lead to particular difficulties or involve unusual hazards.		
267.	AMC1 ORO.CC.115(e)	CRM – Syllabus – Case studies	✓			<p>(i) CRM training should cover aircraft type-specific case studies, based on the information available within the operator's management system, including:</p> <p>(A) accident and serious incident reviews to analyse and identify any associated non-technical causal and contributory factors, and instances or examples of lack of CRM; and</p> <p>(B) analysis of occurrences that were well managed.</p> <p>(ii) If relevant aircraft type-specific or operator-specific case studies are not available, the operator should consider other case studies relevant to the scale and scope of its operations.</p>		
268.	AMC2 ORO.CC.115(e)	CRM – Single CCM	✓			<p>For single cabin crew operations, AMC1 ORO.CC.115(e) should be applied with the following differences:</p> <p>(a) Relevant training elements</p> <p>CRM training should focus on the elements specified in Table 1 of (g) of AMC1 ORO.CC.115(e) which are relevant to single cabin crew operations. Therefore, single cabin crew CRM training should include, among others:</p> <p>(1) situation awareness;</p> <p>(2) workload management;</p> <p>(3) decision-making;</p> <p>(4) resilience development;</p> <p>(5) surprise and startle effect; and</p> <p>(6) effective communication and coordination with</p> <p>(i) the flight crew; and</p> <p>(ii) other operational personnel and ground services.</p> <p>(b) Computer-based training</p> <p>Notwithstanding (a)(3) of AMC1 ORO.CC.115(e),</p>		

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						computer-based training may be conducted as a stand-alone training method for a cabin crew member operating on aircraft with a maximum operational passenger seating configuration of 19 or less.		
CRM trainer								
269.	ORO.CC.115 AMC3 ORO.CC.115(e)	CRM trainer - Introduction	✓			The provisions described below: (1) should be fulfilled by cabin crew CRM trainers responsible for classroom CRM training; and (2) are not applicable to trainers or instructors conducting training other than CRM training, but integrating CRM elements into this training. Nevertheless, trainers or instructors who are integrating CRM elements into the aircraft type training, recurrent training or senior cabin crew member training should have acquired relevant knowledge of human performance and limitations, and have completed appropriate CRM training.		
270.	AMC3 ORO.CC.115(e)	CRM trainer - Qualification	✓			(1) A training and standardisation programme for cabin crew CRM trainers should be established. (2) The cabin crew CRM trainer, in order to be suitably qualified, should: (i) have adequate knowledge of the relevant flight operations; (ii) have received instructions on human performance and limitations (HPL); (iii) have completed an introductory CRM course, as required in Subpart-CC, and an operator's CRM training, as specified in AMC1 ORO.CC.115(e); (iv) have received training in group facilitation skills; (v) have received additional training in the fields of group management, group dynamics and personal awareness; and (vi) have demonstrated the knowledge, skills and credibility required to train the CRM training elements in the non-operational environment, as		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						specified in Table 1 of AMC1 ORO.CC.115(e). (3) An experienced CRM trainer may become a cabin crew CRM trainer if he/she demonstrates a satisfactory knowledge of the relevant flight operations and the cabin crew working environment, and fulfils the provisions specified in (2)(ii) to (2)(vi).		
271.	AMC3 ORO.CC.115(e)	CRM trainer - Training	✓			(1) Training of cabin crew CRM trainers should be both theoretical and practical. Practical elements should include the development of specific trainer skills, particularly the integration of CRM into day-to-day operations. (2) The basic training of cabin crew CRM trainers should include the training elements for cabin crew, as specified in Table 1 of AMC1 ORO.CC.115(e). In addition, the basic training should include the following: (i) introduction to CRM training; (ii) operator's management system; and (iii) characteristics, as applicable: (A) of the different types of CRM trainings (initial, recurrent, etc.); (B) of combined training; and (C) related to the type of aircraft or operation. (3) The refresher training of cabin crew CRM trainers should include new methodologies, procedures and lessons learned. (4) The training of cabin crew CRM trainers should be conducted by cabin crew CRM trainers with a minimum of 3 years' experience. Assistance may be provided by experts in order to address specific areas.		
272.	AMC3 ORO.CC.115(e) GM5 ORO.CC.115(e)	CRM trainer - Assessment	✓			(1) A cabin crew CRM trainer should be assessed by the operator when conducting the first CRM training course. This first assessment should be valid for a period of 3 years. (2) Assessment is the process of observing, recording, interpreting and debriefing the cabin crew CRM		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<p>trainer. The operator should describe the assessment process in the operations manual. All personnel involved in the assessment must be credible and competent in their role.</p> <p>See GM5 ORO.CC.115(e)</p>		
273.	AMC3 ORO.CC.115(e)	CRM trainer – Recency and renewal	✓			<p>(1) For recency of the 3-year validity period, the cabin crew CRM trainer should:</p> <p>(i) conduct at least 2 CRM training events in any 12-month period;</p> <p>(ii) be assessed within the last 12 months of the 3-year validity period by the operator; and</p> <p>(iii) complete CRM trainer refresher training within the 3-year validity period.</p> <p>(2) The next 3-year validity period should start at the end of the previous period.</p> <p>(3) For renewal, i.e. when a cabin crew CRM trainer does not fulfil the provisions of (1), he/she should, before resuming as cabin crew CRM trainer:</p> <p>(i) comply with the qualification provisions of (b) and (d); and</p> <p>(ii) complete CRM trainer refresher training.</p>		
274.	GM2 ORO.CC.115(e)	CRM trainer – Minimum times				<p>(i) basic training:</p> <p>(A) 18 training hours for trainees holding an instructor certificate for complex motor-powered aircraft, as specified in Part-FCL, which includes 25-hour training in teaching and learning; or</p> <p>(B) 30 training hours for trainees who do not hold an instructor certificate as specified in (A); and</p> <p>(ii) refresher training: 6 training hours.</p>		
Conversion & difference training								
275.	ORO.CC.125 CC.TRA.225(b)(i)	Conversion course – Operator & aircraft type - General	✓			Each CCM shall have completed appropriate aircraft type specific training and operator conversion training, as well as the associated checks, before being:		

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						(1) first assigned by the operator to operate as a cabin crew member; or (2) assigned by that operator to operate on another aircraft type.		
276.	ORO.CC.125 CC.TRA.225(b)(i)	Conversion course – Operator & aircraft type - General	✓			When establishing the aircraft type specific and the operator conversion training programmes and syllabi, the operator shall include, where available, the mandatory elements for the relevant type as defined in the data established in accordance with LYCARs		
277.	ORO.CC.125 CC.TRA.225(b)(i)	Conversion course – Aircraft type specific programme	✓			The aircraft type specific training programme shall: (1) involve training and practice on a representative training device or on the actual aircraft; and (2) cover at least the following aircraft type specific training elements: (i) aircraft description as relevant to cabin crew duties; (ii) all safety equipment and systems installed relevant to cabin crew duties; (iii) operation and actual opening, by each cabin crew member, of each type or variant of normal and emergency doors and exits in the normal and emergency modes; (iv) demonstration of the operation of the other exits including flight crew compartment windows; (v) fire and smoke protection equipment where installed; (vi) evacuation slide training, where fitted; (vii) operation of the seat, restraint system and oxygen system equipment relevant to pilot incapacitation.		
278.	AMC1 ORO.CC.125(c)	Conversion course – Aircraft type specific programme – Aircraft description	✓			(1) type of aircraft, principal dimensions, narrow or wide bodied, single or double deck; (2) speed, altitude, range;		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						(3) passenger seating capacity; (4) flight crew number and minimum number of required cabin crew; (5) cabin doors/exits location and sill height; (6) cargo and unpressurised areas as relevant; (7) aircraft systems relevant to cabin crew duties; (8) flight crew compartment - general presentation, pilot seats and their mechanism, emergency exits, storage; (9) required cabin crew stations; (10) flight crew compartment security - general: door components and use; (11) access to avionics bay where relevant; (12) lavatories - general: doors, systems, calls and signs; and (13) least risk bomb location.		
279.	AMC1 ORO.CC.125(c)	Conversion course – Aircraft type specific programme – Safety and emergency equipment and aircraft systems installed	✓			Each CCM should receive realistic training on, and demonstration of, the location and use of all aircraft type specific safety and emergency equipment and aircraft systems installed, with emphasis on the following: (1) slides, and where non-self-supporting slides are carried, the use of any associated assisting evacuation means; (2) life-rafts and slide-rafts, including the equipment attached to, and/or carried in, the raft; (3) drop-out oxygen system; and (4) communication equipment.		
280.	AMC1 ORO.CC.125(c)	Conversion course – Aircraft type specific programme – Operation of doors and exits	✓			This training should be conducted in a representative training device or in the actual aircraft and should include failure of power assist systems where fitted and the action and forces required to operate and deploy evacuation slides. Training should also include operation and actual opening of the flight crew		

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						compartment security door when installed.		
281.	AMC1 ORO.CC.125(c)	Conversion course – Aircraft type specific programme – Fire and smoke protection equipment	✓			Each cabin crew member should be trained in using fire and/or smoke protection equipment where fitted.		
282.	AMC1 ORO.CC.125(c)	Conversion course – Aircraft type specific programme – Evacuation slide training	✓			(1) Each cabin crew member should descend an evacuation slide from a height representative of the aircraft main deck sill height. (2) The slide should be fitted to a representative training device or to the actual aircraft. (3) A further descent should be made when the cabin crew member qualifies on an aircraft type in which the main deck exit sill height differs significantly from any aircraft type previously operated.		
283.	AMC1 ORO.CC.125(c)	Conversion course – Aircraft type specific programme – Operation of equipment related to pilot incapacitation	✓			The training should cover any type specific elements or conditions relevant to cabin crew actions to be taken in case of pilot incapacitation. Each CCM should be trained to operate all equipment that must be used in case of pilot incapacitation.		
284.	ORO.CC.125 CC.TRA.225(b)(i)	Conversion course – Operator conversion programme	✓			The operator conversion training programme for each aircraft type to be operated shall: (1) involve training and practice on a representative training device or on the actual aircraft; (2) include training in the operator's standard operating procedures for cabin crew members to be first assigned to duties by the operator; (3) cover at least the following operator specific training elements as relevant to the aircraft type to be operated: (i) description of the cabin configuration; (ii) location, removal and use of all portable safety and emergency equipment carried on-board; (iii) all normal and emergency procedures; (iv) passenger handling and crowd control;		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<p>(v) fire and smoke training including the use of all related fire-fighting and protective equipment representative of that carried on-board;</p> <p>(vi) evacuation procedures;</p> <p>(vii) pilot incapacitation procedures;</p> <p>(viii) applicable security requirements and procedures;</p> <p>(ix) crew resource management.</p>		
285.	AMC1 ORO.CC.125(d)	Conversion course – Operator conversion programme – Description of the cabin configuration	✓			<p>The description should cover all elements specific to the operator's cabin configuration and any differences with those previously covered in accordance with AMC1 ORO.CC.125(c), including:</p> <p>(1) required and additional cabin crew stations - location (including direct view), restraint systems, control panels;</p> <p>(2) passenger seats – general presentation and associated operator's specific features and equipment;</p> <p>(3) designated stowage areas;</p> <p>(4) lavatories - operator's specific features, equipment and systems additional to the aircraft type specific elements;</p> <p>(5) galley - location, appliances, water and waste system, including shut-off, sinks, drains, stowage, control panels, calls and signs;</p> <p>and where applicable</p> <p>(6) crew rest areas - location, systems, controls, safety and emergency equipment;</p> <p>(7) cabin dividers, curtains, partitions;</p> <p>(8) lift location, use, controls;</p> <p>(9) stowage for the containment of waste; and</p> <p>(10) passenger hand rail system or alternative means.</p>		

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286.	AMC1 ORO.CC.125(d)	Conversion course – Operator conversion programme – Safety and emergency equipment	✓			<p>Each cabin crew member should receive realistic training on and demonstration of the location and use of all safety and emergency equipment carried, including:</p> <p>(1) life-jackets, infant life-jackets and flotation devices;</p> <p>(2) first-aid and drop-out oxygen, including supplementary systems;</p> <p>(3) fire extinguishers and protective breathing equipment (PBE);</p> <p>(4) crash axe or crowbar;</p> <p>(5) emergency lights including torches;</p> <p>(6) communication equipment, including megaphones;</p> <p>(7) slide-rafts and life-rafts' survival packs and their contents;</p> <p>(8) pyrotechnics (actual or representative devices);</p> <p>(9) first-aid kits, emergency medical kits and their contents; and</p> <p>(10) other portable safety and emergency equipment, where applicable.</p>		
287.	AMC1 ORO.CC.125(d)	Conversion course – Operator conversion programme – Normal and emergency procedures	✓			<p>Each cabin crew member should be trained on the operator's normal and emergency procedures as applicable, with emphasis on the following:</p> <p>(1) passenger briefing, safety demonstration and cabin surveillance;</p> <p>(2) severe air turbulence;</p> <p>(3) non-pressurisation, slow and sudden decompression, including the donning of portable oxygen equipment by each cabin crew member;</p> <p>(4) other in-flight emergencies; and</p> <p>(5) carriage of special categories of passengers (SCPs) (Item (5) will be applicable from 22-Jan-2020)</p>		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
288.	AMC1 ORO.CC.125(d)	Conversion course – Operator conversion programme – Passenger handling and crowd control	✓			<p>Training should be provided on the practical aspects of passenger preparation and handling, as well as crowd control, in various emergency situations as applicable to the operator's specific aircraft cabin configuration, and should cover the following:</p> <p>(1) communications between flight crew and cabin crew and use of all communications equipment, including the difficulties of coordination in a smoke-filled environment;</p> <p>(2) verbal commands;</p> <p>(3) the physical contact that may be needed to encourage people out of a door/exit and onto a slide;</p> <p>(4) redirection of passengers away from unusable doors/exits;</p> <p>(5) marshalling of passengers away from the aircraft;</p> <p>(6) evacuation of special categories of passengers with emphasis on passengers with disabilities or reduced mobility; and</p> <p>(7) authority and leadership.</p>		
289.	AMC1 ORO.CC.125(d)	Conversion course – Operator conversion programme – Fire and smoke training	✓			<p>(1) Each cabin crew member should receive realistic and practical training in the use of all fire-fighting equipment, including protective clothing representative of that carried in the aircraft.</p> <p>(2) Each cabin crew member should:</p> <p>(i) extinguish an actual fire characteristic of an aircraft interior fire except that, in the case of halon extinguishers, an alternative extinguishing agent may be used; and</p> <p>(ii) exercise the donning and use of PBE in an enclosed simulated smoke-filled environment with particular emphasis on identifying the actual source of fire and smoke.</p>		
290.	AMC1 ORO.CC.125(d)	Conversion course – Operator conversion programme – Evacuation procedures	✓			<p>Training should include all the operator's procedures that are applicable to planned or unplanned evacuations on land and water. It should also include, where relevant, the additional actions required from</p>		

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						cabin crew members responsible for a pair of doors/exits and the recognition of when doors/exits are unusable or when evacuation equipment is unserviceable.		
291.	AMC1 ORO.CC.125(d)	Conversion course – Operator conversion programme – Pilot incapacitation procedures	✓			Unless the minimum flight crew is more than two, each cabin crew member should be trained in the procedure for pilot incapacitation. Training in the use of flight crew checklists, where required by the operator's standard operating procedures (SOPs), should be conducted by a practical demonstration.		
292.	AMC1 ORO.CC.125(d) AMC1 ORO.CC.115(e)	Conversion course – Operator conversion programme – Crew resource management	✓			<p>The operator's CRM training should cover all elements listed in Table 1 of (g). Several training elements are specified as 'not required' for the operator's CRM training, since they are covered under the introductory CRM course for cabin crew as required in Subpart-CC.</p> <p>If the cabin crew member undertakes the operator's conversion training on an aircraft type, the applicable CRM training elements should be covered as specified in Table 1 of (g) AMC1 ORO.CC.115(e).</p> <p>(1) The operator should ensure that all applicable CRM training elements, as specified in Table 1 of AMC1 ORO.CC.115(e), are covered to the level required in the column 'Operator aircraft type conversion training'.</p> <p>(2) The operator's CRM training and the CRM training covered during the operator aircraft type conversion training should be conducted by at least one cabin crew CRM instructor.</p>		
293.	GM2 ORO.CC.115(e)	Conversion course – Operator conversion programme – Crew resource management - Duration				Operator's CRM training: 6 training hours		
294.	ORO.CC.130 CC.TRA.225(b)(ii)	Difference training	✓			<p>In addition to the training required in ORO.CC.125, the CCM shall complete appropriate training and checking covering any differences before being assigned on:</p> <p>(1) a variant of an aircraft type currently operated; or</p> <p>(2) a currently operated aircraft type or variant with</p>		

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						different: (i) safety equipment; (ii) safety and emergency equipment location; or (iii) normal and emergency procedures.		
295.	ORO.CC.130 CC.TRA.225(b)(ii)	Difference training	✓			The differences training programme shall: (1) be determined as necessary on the basis of a comparison with the training programme completed by the CCM, in accordance with ORO.CC.125(c) and (d), for the relevant aircraft type; and (2) involve training and practice in a representative training device or the actual aircraft as relevant to the difference training element to be covered.		
296.	ORO.CC.130 CC.TRA.225(b)(ii)	Difference training	✓			When establishing a differences training programme and syllabus for a variant of an aircraft type currently operated, the operator shall include, where available, the mandatory elements for the relevant aircraft type and its variants as defined in the data established in accordance with LYCARs.		
297.	AMC1 ORO.CC.125 & ORO.CC.130	Conversion course/difference training – Previous training	✓			The programmes and syllabi of aircraft type specific training, operator conversion training and differences training should take into account the cabin crew member's previous training as documented in his/her training records.		
298.	ORO.CC.135	Familiarisation	✓			After completion of aircraft type specific training and operator conversion training on an aircraft type, each CCM shall complete appropriate supervised familiarisation on the type before being assigned to operate as a member of the minimum number of cabin crew required in accordance with ORO.CC.100.		
299.	AMC1 ORO.CC.135	Familiarisation	✓			For CAT operations, familiarisation of cabin crew to a new aircraft type or variant should be completed in accordance with the following, as relevant: (1) New entrant cabin crew Each new entrant CCM having no previous comparable operating experience should participate in:		

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						(i) a familiarisation visit to the aircraft to be operated; and (ii) familiarisation flights . (2) Cabin crew operating on a subsequent aircraft type A CCM assigned to operate on a subsequent aircraft type with the same operator should participate <u>either</u> in a: (i) familiarisation flight; or (ii) familiarisation visit to the aircraft type to be operated.		
300.	AMC1 ORO.CC.135	Familiarisation – Familiarisation flights	✓			(1) During familiarisation flights, the cabin crew member should be assigned in addition to the minimum number of cabin crew required in accordance with ORO.CC.100 and if applicable ORO.CC.200. (2) Familiarisation flights should be: (i) conducted under the supervision of the senior cabin crew member; (ii) structured and conducted with the cabin crew member participating in pre-flight, in-flight and post-flight safety duties; (iii) operated with the cabin crew member wearing the operator's cabin crew uniform; and (iv) recorded in the training record of the cabin crew member.		
301.	AMC1 ORO.CC.135	Familiarisation – Aircraft familiarisation visits	✓			(1) Aircraft visits should enable the cabin crew member to become familiar with the aircraft environment and its equipment. Accordingly, aircraft visits should be conducted by appropriately qualified persons. The aircraft visit should provide an overview of the aircraft's exterior, interior and aircraft systems with emphasis on the following: (i) interphone and public address systems; (ii) evacuation alarm systems;		

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						(iii) emergency lighting; (iv) smoke detection systems; (v) safety and emergency equipment; (vi) flight crew compartment; (vii) cabin crew stations; (viii) lavatories; (ix) galleys, galley security and water shut-off; (x) cargo areas if accessible from the passenger compartment during flight; (xi) circuit breaker panels located in the passenger compartment; (xii) crew rest areas; and (xiii) doors/exits location and environment. (2) An aircraft familiarisation visit may be combined with the aircraft type specific training or operator conversion training required by ORO.CC.125.		
Recurrent training & checking								
302.	ORO.CC.140 CC.TRA.225(b)(iii)	Recurrent & checking training – Frequency	✓			Each CCM shall complete annually recurrent training and checking.		
303.	ORO.CC.140 CC.TRA.225(b)(iii)	Recurrent & checking training – Training	✓			Recurrent training shall cover the actions assigned to each member of the cabin crew in normal and emergency procedures and drills relevant to each aircraft type and/or variant to be operated.		
304.	ORO.CC.140 CC.TRA.225(b)(iii)	Recurrent & checking training – Training – Aircraft	✓			Aircraft type specific training elements: (1) Recurrent training shall include annually touch-drills by each CCM for simulating the operation of each type or variant of normal and emergency doors and exits for passenger evacuation. (2) Recurrent training shall also include at intervals not exceeding 3 years: (i) operation and actual opening by each cabin crew		

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						<p>member, in a representative training device or in the actual aircraft, of each type or variant of normal and emergency exits in the normal and emergency modes;</p> <p>(ii) actual operation by each CCM, in a representative training device or in the actual aircraft, of the flight crew compartment security door, in both normal and emergency modes, and of the seat and restraint system, and a practical demonstration of the oxygen system equipment relevant to pilot incapacitation;</p> <p>(iii) demonstration of the operation of all other exits including the flight crew compartment windows; and</p> <p>(iv) demonstration of the use of the life-raft, or slide raft, where fitted.</p>		
305.	ORO.CC.140 CC.TRA.225(b)(iii)	Recurrent & checking training – Training – Operator	✓			<p>(1) Recurrent training shall include <u>annually</u>:</p> <p>(i) by each cabin crew member:</p> <p>(A) location and handling of all safety and emergency equipment installed or carried on board; and</p> <p>(B) the donning of life-jackets, portable oxygen and protective breathing equipment (PBE);</p> <p>(ii) stowage of articles in the passenger compartment;</p> <p>(iii) procedures related to aircraft surface contamination;</p> <p>(iv) emergency procedures;</p> <p>(v) evacuation procedures;</p> <p>(vi) incident and accident review;</p> <p>(vii) crew resource management;</p> <p>(viii) aero-medical aspects and first aid including related equipment;</p> <p>(ix) security procedures.</p>		
306.	ORO.CC.140 CC.TRA.225(b)(iii)	Recurrent & checking training – Training – Operator	✓			<p>(2) Recurrent training shall also include at intervals not exceeding <u>three years</u>:</p> <p>(i) use of pyrotechnics (actual or representative</p>		

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						<p>devices);</p> <p>(ii) practical demonstration of the use of flight crew checklists;</p> <p>(iii) realistic and practical training in the use of all fire-fighting equipment, including protective clothing, representative of that carried in the aircraft;</p> <p>(iv) by each cabin crew member:</p> <p>(A) extinguishing a fire characteristic of an aircraft interior fire;</p> <p>(B) donning and use of PBE in an enclosed simulated smoke-filled environment.</p>		
307.	ORO.CC.140 CC.TRA.225(b)(iii)	Recurrent & checking training – Validity	✓			<p>(1) The annual recurrent training validity period shall be 12 calendar months counted from the end of the month when the check was taken.</p> <p>(2) If the recurrent training and checking are undertaken within the last 3 calendar months of the validity period, the new validity period shall be counted from the original expiry date.</p> <p>(3) For the additional triennial training elements, the validity period shall be 36 calendar months counted from the end of the month when the checks were taken.</p>		
308.	AMC1 ORO.CC.140	Recurrent & checking training – Annual recurrent training programme	✓			<p>(1) Training on the location and handling of safety and emergency equipment should include all relevant oxygen systems, and any equipment such as defibrillators if carried on board.</p> <p>(2) Training on emergency procedures should cover pilot incapacitation procedures and crowd control techniques.</p>		
309.	AMC1 ORO.CC.140	Recurrent & checking training – Triennial recurrent training programme	✓			<p>(1) Training on the operation of normal and emergency doors/exits should cover failure of power assist systems where fitted. This should include the actions and forces required to operate and deploy evacuation slides, and additional training when relevant for CCM responsible for a pair of doors/exits.</p> <p>(2) Training in the use of all firefighting equipment,</p>		

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						<p>including protective clothing, representative of that carried in the aircraft should include individual practice by each CCM to extinguish a fire characteristic of an aircraft interior fire except that, in the case of halon extinguishers, an alternative extinguishing agent may be used. Training should place particular emphasis on identifying the actual source of fire or smoke.</p> <p>(3) Training on normal and emergency procedures for special categories of passengers (SCPs) should cover the specific procedures established by the operator for the carriage of SCPs. The operator may determine that such training is to be completed at shorter intervals, taking into account the route structure, passenger profiles, aircraft types operated, seasonal demands and operations.</p> <p>(Item (3) will be applicable from 22-Jan-2020)</p>		
310.	AMC1 ORO.CC.140 AMC1 ORO.CC.115(e)	Recurrent & checking training – CRM	✓			<p>CRM training should satisfy the following:</p> <p>(i) the applicable training elements specified in Table 1 of AMC1 ORO.CC.115(e) should be covered within a 3-year cycle to the level required by column 'Annual Recurrent Training';</p> <p>(ii) the definition and implementation of the CRM training programme should be managed by a cabin crew CRM trainer; and</p> <p>(iii) when CRM training is provided by stand-alone modules, it should be conducted by at least one cabin crew CRM trainer.</p>		
311.	AMC1 ORO.CC.115(e)	Recurrent & checking training – CRM	✓			<p>(1) Annual recurrent CRM training should be provided in such a way that all CRM training elements specified for the annual recurrent training in Table 1 of (g) are covered over a period not exceeding 3 years.</p> <p>(2) Operators should update their recurrent CRM training programme over a period not exceeding 3 years. The revision of the programme should take into account information from the operator's management system.</p>		
312.	AMC1 ORO.CC.115(e)	Recurrent & checking training – CRM – Combined	✓			Combined CRM training for flight crew and cabin		

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						<p>crew:</p> <p>(i) Operators should provide combined training for flight crew and cabin crew during recurrent CRM training.</p> <p>(ii) The combined training should address at least:</p> <p>(A) effective communication, coordination of tasks and functions of flight crew and cabin crew; and</p> <p>(B) mixed multinational and cross-cultural flight crew and cabin crew, and their interaction, if applicable.</p> <p>(iii) Combined CRM training should be conducted by flight crew CRM trainer or cabin crew CRM trainer.</p> <p>(iv) There should be an effective liaison between flight crew and cabin crew training departments. Provision should be made for transfer of relevant knowledge and skills between flight crew and cabin crew CRM trainers.</p>		
313.	GM2 ORO.CC.115(e)	Recurrent & checking training – CRM – Minimum time				<p>multi cabin crew operations:</p> <p>Combined CRM training: 6 training hours over a period of 3 years</p> <p>Operator's CRM training for single cabin crew operations: 4 training hours for a cabin crew member operating on aircraft with a maximum operational passenger seating configuration of 19 or less</p>		
Refresher training								
314.	ORO.CC.145	Refresher training - General	✓			<p>When a CCM, during the preceding six months within the validity period of the last relevant recurrent training and checking:</p> <p>(1) has not performed any flying duties, he/she shall, before being reassigned to such duties, complete refresher training and checking for each aircraft type to be operated; or</p> <p>(2) has not performed flying duties on one particular aircraft type, he/she shall, before being reassigned to duties, complete on that aircraft type:</p> <p>(i) refresher training and checking; or</p>		

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						(ii) two familiarisation flights in accordance with ORO.CC.135.		
315.	ORO.CC.145	Refresher training - Programme	✓			<p>The refresher training programme for each aircraft type shall at least cover:</p> <p>(1) emergency procedures;</p> <p>(2) evacuation procedures;</p> <p>(3) operation and actual opening, by each cabin crew member, of each type or variant of normal and emergency exits and of the flight crew compartment security door in the normal and emergency modes;</p> <p>(4) demonstration of the operation of all other exits including the flight crew compartment windows;</p> <p>(5) location and handling of all relevant safety and emergency equipment installed or carried on-board.</p>		
316.	AMC1 ORO.CC.145	Refresher training - Programme	✓			<p>(a) Training on emergency procedures should include pilot incapacitation procedures and crowd control techniques as applicable to the aircraft type; and</p> <p>(b) Operation of doors and exits by each CCM should include failure of power assist systems where fitted as well as the action and forces required to operate and deploy evacuation slides.</p>		
317.	ORO.CC.145	Refresher training - Programme	✓			The operator may elect to replace refresher training by recurrent training if the reinstatement of the CCM's flying duties commences within the validity period of the last recurrent training and checking. If that validity period has expired, refresher training may only be replaced by aircraft type specific and operator conversion training as specified in ORO.CC.125.		
SCCM training								
318.	ORO.CC.200	SCCM training - General				<p>The operator shall nominate cabin crew members to the position of senior cabin crew member only if they:</p> <p>(1) have at least one year of experience as operating cabin crew member; and</p>		

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						(2) have successfully completed a senior cabin crew training course and the associated check.		
319.	ORO.CC.200	SCCM training – Training programme				<p>The senior cabin crew training course shall cover all duties and responsibilities of SCCMs and shall include at least the following elements:</p> <p>(1) pre-flight briefing;</p> <p>(2) cooperation with the crew;</p> <p>(3) review of operator requirements and legal requirements;</p> <p>(4) accident and incident reporting;</p> <p>(5) human factors and crew resource management (CRM); and</p> <p>(6) flight and duty time limitations and rest requirements.</p>		
320.	AMC1 ORO.CC.200(c)	SCCM training – Training programme				<p>The senior cabin crew member training course should at least cover the following elements:</p> <p>(a) Pre-flight briefing:</p> <p>(1) operating as a crew;</p> <p>(2) allocation of cabin crew stations and responsibilities; and</p> <p>(3) consideration of the particular flight, aircraft type, equipment, area and type of operation, including ETOPS and special categories of passengers with emphasis on passengers with disabilities or reduced mobility, infants and stretcher cases.</p> <p>(b) Cooperation within the crew:</p> <p>(1) discipline, responsibilities and chain of command;</p> <p>(2) importance of coordination and communication; and</p> <p>(3) pilot incapacitation.</p> <p>(c) Review of operator requirements and legal requirements:</p>		

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						<p>(1) passenger briefing, safety briefing cards;</p> <p>(2) securing of galleys;</p> <p>(3) stowage of cabin baggage;</p> <p>(4) electronic equipment;</p> <p>(5) procedures when fuelling with passengers on board;</p> <p>(6) turbulence; and</p> <p>(7) documentation.</p> <p>(d) Accident and incident reporting.</p> <p>(e) Human factors and CRM:</p> <p>The operator should ensure that all applicable elements specified in Table 1 of AMC1 ORO.CC.115(e) are integrated into the training and covered to the level required by Column 'Senior Cabin Crew Course'.</p> <p>(f) Flight and duty time limitations and rest requirements (FTL).</p>		
321.	AMC1 ORO.CC.115(e)	SCCM training – CRM	✓			<p>(1) CRM training for senior cabin crew members should be the application of knowledge gained in previous CRM training and operational experience relevant to the specific duties and responsibilities of a senior cabin crew member. The operator should ensure that for the senior cabin crew member course the CRM training elements are integrated into the training, as specified in Table 1 of (g) AMC1 ORO.CC.115(e).</p> <p>(2) During the training the senior cabin crew member should demonstrate the ability:</p> <p>(i) to manage the operation; and</p> <p>(ii) to take appropriate leadership and management decisions.</p>		
Single CCM operations								
322.	ORO.CC.255	Single CCM operations - Training				The following additional training elements shall be covered with particular emphasis to reflect single		

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						<p>cabin crew operations:</p> <p>(1) responsibility to the commander for the conduct of normal and emergency procedures;</p> <p>(2) importance of coordination and communication with the flight crew, in particular when managing unruly or disruptive passengers;</p> <p>(3) review of operator requirements and legal requirements;</p> <p>(4) documentation;</p> <p>(5) accident and incident reporting; and</p> <p>(6) flight and duty time limitations and rest requirements.</p>		
Training and checking programs and related documentation								
323.	ORO.CC.215		✓			<p>(b) After a cabin crew member has successfully completed a training course and the associated check, operator shall:</p> <p>(1) update the cabin crew member's training records in accordance with ORO.MLR.115; and</p>		
324.	ORO.CC.215		✓			<p>(b) After a cabin crew member has successfully completed a training course and the associated check, operator shall:</p> <p>(2) provide him/her with a list showing updated validity periods as relevant to the aircraft type(s) and variant(s) on which the cabin crew member is qualified to operate.</p>		
MEL Training								
325.	ORO.GEN.110(e) AMC1 ORO.GEN.110(e)	MEL Training programme				<p>The operator should develop a training programme for crew members and detail such training in the Operations Manual. Such training programme should include:</p> <p>(1) the scope, extent and use of the MEL;</p> <p>(2) the operator's MEL procedures;</p>		

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						(3) elementary maintenance procedures in accordance with LYCARs; and (4) pilot-in-command/commander responsibilities		
2.3 TECHNICAL CREW								
General								
326.	ORO.TC.110	Training programme – General				The operator shall establish a training programme in accordance with the applicable requirements of ORO.TC to cover the duties and responsibilities to be performed by technical crew members.		
327.	ORO.TC.110	Training programme – Checking				Following the completion of initial, operator conversion, differences and recurrent training, each technical crew member shall undergo a check to demonstrate their proficiency in carrying out normal and emergency procedures.		
328.	AMC1 ORO.TC.110	Training programme – Checking				(a) Elements of training that require individual practice may be combined with practical checks. (b) The checks should be accomplished by the method appropriate to the type of training including: (1) practical demonstration; (2) computer-based assessment; (3) in-flight checks; and/or (4) oral or written tests.		
329.	ORO.TC.110	Training programme – Personnel				Training and checking shall be conducted for each training course by personnel suitably qualified and experienced in the subject to be covered. <u>The operator shall inform the competent authority about the personnel conducting the checks.</u>		
Initial training								
330.	ORO.TC.115	Initial training – General				Before undertaking the operator conversion training, each technical crew member shall complete initial training, including: (a) general theoretical knowledge on aviation and		

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						<p>aviation regulations covering all elements relevant to the duties and responsibilities required of technical crew;</p> <p>(b) fire and smoke training;</p> <p>(c) survival training on ground and in water, appropriate to the type and area of operation;</p> <p>(d) aero-medical aspects and first-aid;</p> <p>(e) communication and relevant CRM elements of ORO.FC.115 and ORO.FC.215.</p>		
331.	AMC1 ORO.TC.115	Initial training – General theoretical knowledge on aviation				<p>General theoretical knowledge on aviation and aviation regulations relevant to duties and responsibilities:</p> <p>(i) the importance of crew members performing their duties in accordance with the operations manual;</p> <p>(ii) continuing competence and fitness to operate as a crew member with special regard to flight and duty time limitations and rest requirements;</p> <p>(iii) an awareness of the aviation regulations relating to crew members and the role of the competent and inspecting authority;</p> <p>(iv) general knowledge of relevant aviation terminology, theory of flight, passenger distribution, meteorology and areas of operation;</p> <p>(v) pre-flight briefing of the crew members and the provision of necessary safety information with regard to their specific duties;</p> <p>(vi) the importance of ensuring that relevant documents and manuals are kept up-to-date with amendments provided by the operator;</p> <p>(vii) the importance of identifying when crew members have the authority and responsibility to initiate an evacuation and other emergency procedures; and</p> <p>(viii) the importance of safety duties and responsibilities and the need to respond promptly and effectively to emergency situations.</p>		

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332.	AMC1 ORO.TC.115	Initial training – Fire & smoke training				Fire and smoke training: (i) reactions to emergencies involving fire and smoke and identification of the fire sources; (ii) the classification of fires and the appropriate type and techniques of application of extinguishing agents, the consequences of misapplication, and of use in a confined space; and (iii) the general procedures of ground-based emergency services at aerodromes.		
333.	AMC1 ORO.TC.115	Initial training – Survival training				When conducting extended overwater operations, water survival training, including the use of personal flotation equipment. Before first operating on an aircraft fitted with life-rafts or other similar equipment, training on the use of this equipment, including practice in water. Survival training appropriate to the areas of operation (e.g. polar, desert, jungle, sea or mountain).		
334.	AMC1 ORO.TC.115	Initial training – First aid				Aero-medical aspects and first aid, including: (i) instruction on first aid and the use of first-aid kits; and (ii) the physiological effects of flying.		
335.	AMC1 ORO.TC.115	Initial training – Communication				Effective communication between technical crew members and flight crew members, including common language and terminology.		
336.	AMC1 ORO.TC.115	Initial training – CRM				Relevant CRM elements of AMC1 ORO.FC.115.		
Operator conversion & difference training								
337.	ORO.TC.120	Operator conversion training – General				Each technical crew member shall complete: (a) operator conversion training, including relevant CRM elements, (1) before being first assigned by the operator as a technical crew member; or (2) when changing to a different aircraft type or class, if any of the equipment or procedures mentioned in		

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						<p>(b) are different.</p> <p>(b) Operator conversion training shall include:</p> <p>(1) the location and use of all safety and survival equipment carried on the aircraft;</p> <p>(2) all normal and emergency procedures;</p> <p>(3) on-board equipment used to carry out duties in the aircraft or on the ground for the purpose of assisting the pilot during HEMS, HHO or NVIS operations.</p>		
338.	ORO.TC.125	Difference training – General				<p>(a) Each technical crew member shall complete differences training when changing equipment or procedures on types or variants currently operated.</p> <p>(b) The operator shall specify in the operations manual when such differences training is required.</p>		
339.	AMC1 ORO.TC.120&.125	Operator conversion & difference training – Fire & smoke				<p>Fire and smoke training, including practical training in the use of all fire fighting equipment as well as protective clothing representative of that carried in the aircraft. Each technical crew member should:</p> <p>(i) extinguish a fire characteristic of an aircraft interior fire except that, in the case of Halon extinguishers, an alternative extinguishing agent may be used; and</p> <p>(ii) practise the donning and use of protective breathing equipment (when fitted) in an enclosed, simulated smoke-filled environment.</p>		
340.	AMC1 ORO.TC.120&.125	Operator conversion & difference training – Exits operations				<p>Practical training on operating and opening all normal and emergency exits for passenger evacuation in an aircraft or representative training device and demonstration of the operation of all other exits.</p>		
341.	AMC1 ORO.TC.120&.125	Operator conversion & difference training – Evacuation procedures and other emergency situations				<p>Evacuation procedures and other emergency situations, including:</p> <p>(i) recognition of planned or unplanned evacuations on land or water - this training should include recognition of unusable exits or unserviceable evacuation equipment;</p> <p>(ii) in-flight fire and identification of fire source; and</p>		

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						(iii) other in-flight emergencies.		
342.	AMC1 ORO.TC.120&.125	Operator conversion & difference training – Incapacitation				When the flight crew is more than one, training on assisting if a pilot becomes incapacitated, including a demonstration of: (i) the pilot's seat mechanism; (ii) fastening and unfastening the pilot's seat restraint system; (iii) use of the pilot's oxygen equipment, when applicable; and (iv) use of pilots' checklists.		
343.	AMC1 ORO.TC.120&.125	Operator conversion & difference training – Safety equipment				Training on, and demonstration of, the location and use of safety equipment, including the following: (i) life-rafts, including the equipment attached to, and/or carried in, the raft, where applicable; (ii) life-jackets, infant life-jackets and flotation devices, where applicable; (iii) fire extinguishers; (iv) crash axe or crow bar; (v) emergency lights, including portable lights; (vi) communication equipment, including megaphones; (vii) survival packs, including their contents; (viii) pyrotechnics (actual or representative devices); (ix) first-aid kits, their contents and emergency medical equipment; and (x) other safety equipment or systems, where applicable.		
344.	AMC1 ORO.TC.120&.125	Operator conversion & difference training – Pax briefing				Training on passenger briefing/safety demonstrations and preparation of passengers for normal and emergency situations.		
345.	AMC1 ORO.TC.120&.125	Operator conversion & difference training – DG				Training on the use of dangerous goods, if applicable.		

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346.	AMC1 ORO.TC.120&.125	Operator conversion & difference training – Other				Task-specific training.		
347.	AMC2 ORO.TC.120&.125	Operator conversion & difference training				<p>(a) The operator should determine the content of the conversion or differences training taking account of the technical crew member's previous training as documented in the technical crew member's training records.</p> <p>(b) Aircraft conversion or differences training should be conducted according to a syllabus and include the use of relevant equipment and emergency procedures and practice on a representative training device or on the actual aircraft.</p> <p>(c) The operator should specify in the operations manual the maximum number of types or variants that can be operated by a technical crew member.</p>		
348.	ORO.TC.130	Familiarisation flights – General				Following completion of the operator conversion training, each technical crew member shall undertake familiarisation flights prior to operating as a required technical crew member in HEMS, HHO or NVIS operations.		
Recurrent training								
349.	ORO.TC.135	Recurrent training – General				<p>(a) Within every 12-month period, each technical crew member shall undergo recurrent training relevant to the type or class of aircraft and equipment that the technical crew member operates. Elements of CRM shall be integrated into all appropriate phases of the recurrent training.</p> <p>(b) Recurrent training shall include theoretical and practical instruction and practice.</p>		
350.	AMC1 ORO.TC.135	Recurrent training – Yearly programme				<p>The recurrent practical training should include every year:</p> <p>(1) emergency procedures, including pilot incapacitation;</p> <p>(2) evacuation procedures;</p> <p>(3) touch-drills by each technical crew member for opening normal and emergency exits for (passenger) evacuation;</p>		

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						<p>(4) the location and handling of emergency equipment and the donning by each technical crew member of life-jackets and protective breathing equipment (PBE), when applicable;</p> <p>(5) first aid and the contents of the first-aid kit(s);</p> <p>(6) stowage of articles in the cabin;</p> <p>(7) use of dangerous goods, if applicable;</p> <p>(8) incident and accident review; and</p> <p>(9) crew resource management: all major topics of the initial CRM training should be covered over a period not exceeding 3 years. See AMC1 ORO.FC.115.</p>		
351.	AMC1 ORO.TC.135	Recurrent training – 3 years programme				<p>Recurrent training should include every 3 years:</p> <p>(1) practical training on operating and opening all normal and emergency exits for passenger evacuation in an aircraft or representative training device and demonstration of the operation of all other exits;</p> <p>(2) practical training in the use of all fire fighting equipment as well as protective clothing representative of that carried in the aircraft. Each technical crew member should:</p> <p>(i) extinguish a fire characteristic of an aircraft interior fire except that, in the case of Halon extinguishers, an alternative extinguishing agent may be used; and</p> <p>(ii) practise the donning and use of protective breathing equipment (when fitted) in an enclosed, simulated smoke-filled environment;</p> <p>(3) use of pyrotechnics (actual or representative devices); and</p> <p>(4) demonstration of the use of the life-raft, where fitted.</p>		
Refresher training								
352.	ORO.TC.140	Refresher training – General				<p>(a) Each technical crew member who has not undertaken duties in the previous six months shall complete the refresher training specified in the</p>		

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						operations manual. (b) The technical crew member who has not performed flying duties on one particular aircraft type or class during the preceding six months shall, before being assigned on that type or class, complete either: (1) refresher training on the type or class; or (2) two familiarisation sectors on the aircraft type or class.		
353.	AMC1 ORO.TC.140	Refresher training – Programme				(a) Refresher training may include familiarisation flights. (b) Refresher training should include at least the following: (1) emergency procedures, including pilot incapacitation; (2) evacuation procedures; (3) practical training on operating and opening all normal and emergency exits for passenger evacuation in an aircraft or representative training device and demonstration of the operation of all other exits; and (4) the location and handling of emergency equipment, and the donning of life-jackets and protective breathing equipment, when applicable.		
MEL Training								
354.	ORO.GEN.110(e) AMC1 ORO.GEN.110(e)	MEL Training programme				The operator should develop a training programme for crew members and detail such training in the Operations Manual. Such training programme should include: (1) the scope, extent and use of the MEL; (2) the operator's MEL procedures; (3) elementary maintenance procedures in accordance with LYCARs; and (4) pilot-in-command/commander responsibilities		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
NVIS								
355.	SPA.NVIS.130 AMC1 SPA.NVIS.130(f)(1)	NVIS Training & checking programme				<p>NVIS technical crew member should be trained and checked in the following items:</p> <p>(1) NVIS working principles, eye physiology, vision at night, limitations, and techniques to overcome these limitations;</p> <p>(2) duties in the NVIS role, with and without NVGs;</p> <p>(3) the NVIS installation;</p> <p>(4) operation and use of the NVIS equipment;</p> <p>(5) preparing the helicopter and specialist equipment for NVIS operations;</p> <p>(6) normal and emergency procedures;</p> <p>(7) crew coordination concepts specific to NVIS operations;</p> <p>(8) awareness of specific dangers relating to the operating environment; and</p> <p>(9) risk analysis, mitigation and management.</p> <p>See GMs SPA.NVIS.130(f) for more details.</p>		
HHO								
356.	SPA.HHO.130 AMC1 SPA.HHO.130(f)(1)	HHO Training & checking programme				<p>HHO technical crew members should be trained and checked in the following items:</p> <p>(1) duties in the HHO role;</p> <p>(2) fitting and use of the hoist;</p> <p>(3) operation of hoist equipment;</p> <p>(4) preparing the helicopter and specialist equipment for HHO;</p> <p>(5) normal and emergency procedures;</p> <p>(6) crew coordination concepts specific to HHO;</p> <p>(7) operation of inter-communication and radio equipment;</p>		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						(8) knowledge of emergency hoist equipment; (9) techniques for handling HHO passengers; (10) effect of the movement of personnel on the centre of gravity and mass during HHO; (11) effect of the movement of personnel on performance during normal and emergency flight conditions; (12) techniques for guiding pilots over HHO sites; (13) awareness of specific dangers relating to the operating environment; and (14) the dangers of static electricity discharge.		
HEMS								
357.	SPA.HEMS.130 AMC1 SPA.HEMS.130(f)(1)	HEMS Training & checking programme				HEMS technical crew members should be trained and checked in the following items: (1) duties in the HEMS role; (2) map reading, navigation aid principles and use; (3) operation of radio equipment; (4) use of on-board medical equipment; (5) preparing the helicopter and specialist medical equipment for subsequent HEMS departure; (6) instrument reading, warnings, use of normal and emergency checklists in assistance of the pilot as required; (7) basic understanding of the helicopter type in terms of location and design of normal and emergency systems and equipment; (8) crew coordination; (9) practice of response to HEMS call out; (10) conducting refuelling and rotors running refuelling; (11) HEMS operating site selection and use;		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						(12) techniques for handling patients, the medical consequences of air transport and some knowledge of hospital casualty reception; (13) marshalling signals; (14) underslung load operations as appropriate; (15) winch operations as appropriate; (16) the dangers to self and others of rotor running helicopters including loading of patients; and (17) the use of the helicopter inter-communications system.		
2.4 DANGEROUS GOODS, SECURITY TRAINING AND FATIGUE MANAGEMENT TRAINING FOR OPERATIONS PERSONNEL								
Dangerous goods								
358.	ORO.GEN.110	Dangerous Goods – General	✓			The operator shall establish and maintain dangerous goods training programmes for personnel as required by the technical instructions which shall be subject to review and approval by the competent authority. Training programmes shall be commensurate with the responsibilities of personnel.		
359.	ICAO Doc 9284	Dangerous Goods – General – Validity	✓			The validity period of DG training is 24 months.		
360.	ICAO Doc 9284	Dangerous Goods – General – Test	✓			A test must be provided following DG training to verify the understanding of the regulations.		
361.	ICAO Doc 9284	Dangerous Goods – “No carry” operators – Flight crew	✓			Approved category 16 training shall be provided to FCM.		
362.	ICAO Doc 9284	Dangerous Goods – “No carry” operators – Cabin crew	✓			Approved category 17 training shall be provided to CCM.		
363.	ICAO Doc 9284	Dangerous Goods – “No carry” operators – Other crew	✓			Approved category 17 training shall be provided to other crew members.		
364.	ICAO Doc 9284	Dangerous Goods – “No carry” operators – Loadmasters	✓			Approved category 16 training shall be provided to loadmasters.		
365.	ICAO Doc 9284	Dangerous Goods – “No carry” operators – Flight ops officers/Flight dispatchers	✓			Approved category 16 training shall be provided to Flight ops officers/Flight dispatchers.		
366.	SPA.DG.105	Dangerous goods – Approved operators	✓			The operator shall establish and maintain a training		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
	AMC1 SPA.DG.105(a)					programme for all personnel involved and demonstrate to the competent authority that adequate training has been given to all personnel.		
367.	ICAO Doc 9284	Dangerous Goods – Approved operators – Flight crew	✓			Approved category 10 training shall be provided to FCM.		
368.	ICAO Doc 9284	Dangerous Goods – Approved operators – Cabin crew	✓			Approved category 11 training shall be provided to CCM.		
369.	ICAO Doc 9284	Dangerous Goods – Approved operators – Other crew	✓			Approved category 11 training shall be provided to other crew members.		
370.	ICAO Doc 9284	Dangerous Goods – Approved operators – Loadmasters	✓			Approved category 10 training shall be provided to loadmasters.		
371.	ICAO Doc 9284	Dangerous Goods – Approved operators – Flight ops officers/Flight dispatchers	✓			Approved category 10 training shall be provided to Flight ops officers/Flight dispatchers.		
Security								
372.	AMC1 ORO.GEN.110(a) Reg 300/2008	Flight crew / Technical crew – Security training	✓			<p>Without prejudice to LYCARs, the CAT operator should establish and maintain a security training programme for crew members, including theoretical and practical elements. This training should be provided at the time of operator conversion training and thereafter at intervals not exceeding three years. The content and duration of the training should be adapted to the security threats of the individual operator and should ensure that crew members act in the most appropriate manner to minimise the consequences of acts of unlawful interference. This programme should include the following elements:</p> <p>(a) determination of the seriousness of the occurrence;</p> <p>(b) crew communication and coordination;</p> <p>(c) appropriate self-defence responses;</p> <p>(d) use of non-lethal protective devices assigned to crew members whose use is authorised by the Member State;</p> <p>(e) understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with</p>		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<p>hijacker behaviour and passenger responses;</p> <p>(f) in case where cabin crew are required, live situational training exercises regarding various threat conditions;</p> <p>(g) flight crew compartment procedures to protect the aircraft;</p> <p>(h) aircraft search procedures, in accordance with LYCARs, including identification of prohibited articles; and</p> <p>(i) guidance on the least risk bomb locations.</p>		
373.	ORO.CC.125 Reg 300/2008	Cabin crew – Security – Initial and Conversion training	✓			<p>Without prejudice to LYCARs, the CAT operator should establish and maintain a security training programme for crew members, including theoretical and practical elements. This training should be provided at the time of operator conversion training and thereafter at intervals not exceeding three years. The content and duration of the training should be adapted to the security threats of the individual operator and should ensure that crew members act in the most appropriate manner to minimise the consequences of acts of unlawful interference. This programme should include the following elements:</p> <p>(a) determination of the seriousness of the occurrence;</p> <p>(b) crew communication and coordination;</p> <p>(c) appropriate self-defence responses;</p> <p>(d) use of non-lethal protective devices assigned to crew members whose use is authorised by the Member State;</p> <p>(e) understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacker behaviour and passenger responses;</p> <p>(f) in case where cabin crew are required, live situational training exercises regarding various threat conditions;</p> <p>(g) flight crew compartment procedures to protect</p>		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<p>the aircraft;</p> <p>(h) aircraft search procedures, in accordance with LYCARs, including identification of prohibited articles; and</p> <p>(i) guidance on the least risk bomb locations.</p>		
374.	ORO.CC.140 Reg 300/2008	Cabin crew – Security – Annual recurrent training				<p>Security procedures shall be part of the annual recurrent training programme (ORO.CC.140).</p> <p>Without prejudice to LYCARs, the CAT operator should establish and maintain a security training programme for crew members, including theoretical and practical elements. This training should be provided at the time of operator conversion training and thereafter at intervals not exceeding three years. The content and duration of the training should be adapted to the security threats of the individual operator and should ensure that crew members act in the most appropriate manner to minimise the consequences of acts of unlawful interference. This programme should include the following elements:</p> <p>(a) determination of the seriousness of the occurrence;</p> <p>(b) crew communication and coordination;</p> <p>(c) appropriate self-defence responses;</p> <p>(d) use of non-lethal protective devices assigned to crew members whose use is authorised by the Member State;</p> <p>(e) understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacker behaviour and passenger responses;</p> <p>(f) in case where cabin crew are required, live situational training exercises regarding various threat conditions;</p> <p>(g) flight crew compartment procedures to protect the aircraft;</p> <p>(h) aircraft search procedures, in accordance with LYCARs, including identification of prohibited articles;</p>		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						and (i) guidance on the least risk bomb locations.		
375.	AMC2 ORO.GEN.110(a) Reg 300/2008	Ground personnel – Security training	✓			In accordance with LYCARs, the CAT operator should establish and maintain a security training programme for ground personnel to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.		
Fatigue Management								
376.	ORO.FTL.250 AMC1 ORO.FTL.250	Crew members - Initial and recurrent fatigue management training APPLICABLE TO CAT OPERATIONS EXCEPT TAXI, AND EMS	✓			The training syllabus should contain the following: (a) applicable regulatory requirements for flight, duty and rest; (b) the basics of fatigue including sleep fundamentals and the effects of disturbing the circadian rhythms; (c) the causes of fatigue, including medical conditions that may lead to fatigue; (d) the effect of fatigue on performance; (e) fatigue countermeasures; (f) the influence of lifestyle, including nutrition, exercise, and family life, on fatigue; (g) familiarity with sleep disorders and their possible treatments; (h) where applicable, the effects of long range operations and heavy short range schedules on individuals; (i) the effect of operating through and within multiple time zones; and (j) the crew member responsibility for ensuring adequate rest and fitness for flight duty.		
377.	ORO.FTL.250 AMC1 ORO.FTL.250	Personnel responsible for preparation and maintenance of crew rosters and management personnel - Initial and recurrent fatigue management training	✓			The training syllabus should contain the following: (a) applicable regulatory requirements for flight, duty		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<p>and rest;</p> <p>(b) the basics of fatigue including sleep fundamentals and the effects of disturbing the circadian rhythms;</p> <p>(c) the causes of fatigue, including medical conditions that may lead to fatigue;</p> <p>(d) the effect of fatigue on performance;</p> <p>(e) fatigue countermeasures;</p> <p>(f) the influence of lifestyle, including nutrition, exercise, and family life, on fatigue;</p> <p>(g) familiarity with sleep disorders and their possible treatments;</p> <p>(h) where applicable, the effects of long range operations and heavy short range schedules on individuals;</p> <p>(i) the effect of operating through and within multiple time zones; and</p> <p>(j) the crew member responsibility for ensuring adequate rest and fitness for flight duty.</p>		
2.5 OPERATIONS PERSONNEL OTHER THAN CREW MEMBERS								
378.	ORO.GEN.110	Ground and flight operations personnel	✓			The operator shall ensure that all personnel assigned to, or directly involved in, ground and flight operations are properly instructed, have demonstrated their abilities in their particular duties and are aware of their responsibilities and the relationship of such duties to the operation as a whole.		
379.	ICAO Doc 7192	Flight operations officers / Flight dispatchers training – Theoretical knowledge				<ol style="list-style-type: none"> 1. Civil air law & regulations 2. Aviation indoctrination 3. Aircraft mass & performance 4. Navigation 5. Air traffic management 6. Meteorology 		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						7. Mass & balance control 8. Transport of DG by air 9. Flight planning 10. Flight monitoring 11. Communication – radio 12. Human factors 13. Security		
380.	ICAO Doc 7192	Flight operations officers / Flight dispatchers training – Practical knowledge				On-the-job training (around 90 days)		
MEL Training								
381.	ORO.GEN.110(e) AMC1 ORO.GEN.110(e)	MEL Training programme	✓			The operator should develop a training programme for ground personnel dealing with the use of the MEL and detail such training in the continuing airworthiness maintenance exposition CAME and OM as appropriate. Such training programme should include: (1) the scope, extent and use of the MEL; (2) placarding of inoperative equipment; (3) deferral procedures; (4) dispatching; and (5) any other operator's MEL related procedures.		
ETOPS training								
382.	SPA.ETOPS.105 AMC 20-6	ETOPS training programme – Dispatchers	✓			The operator's training programme in respect to ETOPS should provide training where applicable for operations personnel other than flight crew (e.g. dispatchers), in addition to refresher training in the following areas: a. ETOPS Regulations/Operations Approval b. Aeroplane performance/Diversion procedures c. Area of Operation		

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						d. Fuel Requirements e. Dispatch Considerations MEL, CDL, weather minima, and alternate airports f. Documentation		
3 PROCEDURES								
383.	AMC3 ORO.MLR.100	3.1 <u>Procedures for training & checking</u>						
384.	AMC3 ORO.MLR.100	3.2 <u>Procedures to be applied in the event that personnel do not achieve or maintain the required standards.</u>						
385.	AMC3 ORO.MLR.100	3.3 <u>Procedures to ensure that abnormal or emergency situations requiring the application of part or all of the abnormal or emergency procedures, and simulation of instrument meteorological conditions (IMC) by artificial means are not simulated during commercial air transport operations.</u>						
386.	CAT.OP.MPA.275	Simulated abnormal situations in flight				The operator shall ensure that when carrying passengers or cargo the following are not simulated: (a) abnormal or emergency situations that require the application of abnormal or emergency procedures; or (b) flight in IMC by artificial means.		
4 DESCRIPTION OF DOCUMENTATION TO BE STORED & STORAGE PERIODS								
387.	ORO.GEN.220	Record-keeping – General				(a) The operator shall establish a system of record-keeping that allows adequate storage and reliable traceability of all activities developed, covering in particular all the elements indicated in ORO.GEN.200. (b) The format of the records shall be specified in the operator's procedures. (c) Records shall be stored in a manner that ensures protection from damage, alteration and theft.		
388.	AMC1 ORO.GEN.220	Record-keeping – General				(a) The record-keeping system should ensure that all records are accessible whenever needed within a reasonable time. These records should be organised in a way that ensures traceability and retrievability throughout the required retention period.		

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389.	AMC1 ORO.GEN.220	Record-keeping – General				(b) Records should be kept in paper form or in electronic format or a combination of both. Records stored on microfilm or optical disc format are also acceptable. The records should remain legible throughout the required retention period. The retention period starts when the record has been created or last amended.		
390.	AMC1 ORO.GEN.220	Record-keeping – General				(c) Paper systems should use robust material which can withstand normal handling and filing. Computer systems should have at least one backup system which should be updated within 24 hours of any new entry. Computer systems should include safeguards against the ability of unauthorised personnel to alter the data.		
391.	AMC1 ORO.GEN.220	Record-keeping – General				(d) All computer hardware used to ensure data backup should be stored in a different location from that containing the working data and in an environment that ensures they remain in good condition. When hardware or software changes take place, special care should be taken that all necessary data continues to be accessible at least through the full period specified in the relevant subpart. In the absence of such indication, all records should be kept for a minimum period of 5 years.		
392.	ORO.MLR.115	Record-keeping – Training records				FCM licence & CCM attestation: as long as privileges are exercised Crew training, checking & qualification: 3 years Crew recent experience: 15 months Crew route, aerodrome & area of operation: 3 years DG training: 3 years Training of other personnel: Last 2 training records		
393.	AMC1 ORO.MLR.115	Record-keeping – Training records				A summary of training should be maintained by the operator to show every crew member's completion of each stage of training and checking.		
394.	ICAO Doc 9284	Dangerous goods record of training				The DG record of training shall include: - The individual's name		

Item N°	Reference	Item	PA	A/NA	Reference	Compliance Criteria	C/NC	Remarks
						<ul style="list-style-type: none">- The most recent training completion month- A description, copy or reference to training materials used to meet the training requirements- The name and address of the organisation providing the training- Evidence, which shows that a test has been completed satisfactorily		

CONCLUSIONS