

**ORO.SEC.100.H Flight crew compartment security**

If installed, the flight crew compartment door on a helicopter operated for the purpose of carrying passengers shall be capable of being locked from within the flight crew compartment in order to prevent unauthorised access.

## SUBPART FC

**FLIGHT CREW****ORO.FC.005 Scope**

This Subpart establishes requirements to be met by the operator conducting commercial air transport operations related to flight crew training, experience and qualification.

**ORO.FC.100 Composition of flight crew**

- (a) The composition of the flight crew and the number of flight crew members at designated crew stations shall be not less than the minimum specified in the aircraft flight manual or operating limitations prescribed for the aircraft.
- (b) The flight crew shall include additional flight crew members when required by the type of operation and shall not be reduced below the number specified in the operations manual.
- (c) All flight crew members shall hold a licence and ratings issued or accepted in accordance with Commission Regulation (EU) No 1178/2011 <sup>(1)</sup> and appropriate to the duties assigned to them.
- (d) The flight crew member may be relieved in flight of his/her duties at the controls by another suitably qualified flight crew member.
- (e) When engaging the services of flight crew members who are working on a freelance or part-time basis, the operator shall verify that all applicable requirements of this Subpart and the relevant elements of Annex I (Part-FCL) to Regulation (EU) No 1178/2011, including the requirements on recent experience, are complied with, taking into account all services rendered by the flight crew member to other operator(s) to determine in particular:

- (1) the total number of aircraft types or variants operated; and
- (2) the applicable flight and duty time limitations and rest requirements.

**ORO.FC.105 Designation as pilot-in-command/commander**

- (a) In accordance with 8.e of Annex IV to Regulation (EC) No 216/2008, one pilot amongst the flight crew, qualified as pilot-in-command in accordance with Annex I (Part-FCL) to Regulation (EU) No 1178/2011, shall be designated by the operator as pilot-in-command/commander.
- (b) The operator shall only designate a flight crew member to act as pilot-in-command/commander if he/she has:
  - (1) the minimum level of experience specified in the operations manual;
  - (2) adequate knowledge of the route or area to be flown and of the aerodromes, including alternate aerodromes, facilities and procedures to be used;
  - (3) in the case of multi-crew operations, completed an operator's command course if upgrading from co-pilot to pilot-in-command/commander.
- (c) The pilot-in-command/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.
- (d) In the case of performance class B aeroplanes involved in commercial air transport operations under VFR by day, (c) shall not apply.

<sup>(1)</sup> OJ L 311, 25.11.2011, p. 1.

**ORO.FC.110 Flight engineer**

When a separate flight engineer station is incorporated in the design of an aeroplane, the flight crew shall include one crew member who is suitably qualified in accordance with applicable national rules.

**ORO.FC.115 Crew resource management (CRM) training**

- (a) Before operating, the flight crew member shall have received CRM training, appropriate to his/her role, as specified in the operations manual.
- (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.

**ORO.FC.120 Operator conversion training**

- (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:
  - (1) when changing to an aircraft for which a new type or class rating is required;
  - (2) when joining an operator.
- (b) The operator conversion training course shall include training on the equipment installed on the aircraft as relevant to flight crew members' roles.

**ORO.FC.125 Differences training and familiarisation training**

- (a) Flight crew members shall complete differences or familiarisation training when required by Annex I (Part-FCL) to Regulation (EU) No 1178/2011 and when changing equipment or procedures requiring additional knowledge on types or variants currently operated.
- (b) The operations manual shall specify when such differences or familiarisation training is required.

**ORO.FC.130 Recurrent training and checking**

- (a) Each flight crew member 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 flight crew member shall be periodically checked to demonstrate competence in carrying out normal, abnormal and emergency procedures.

**ORO.FC.135 Pilot qualification to operate in either pilot's seat**

Flight crew members who may be assigned to operate in either pilot's seat shall complete appropriate training and checking as specified in the operations manual.

**ORO.FC.140 Operation on more than one type or variant**

- (a) Flight crew members operating more than one type or variant of aircraft shall comply with the requirements prescribed in this Subpart 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 Regulation (EC) No 1702/2003 for the relevant types or variants.
- (b) Appropriate procedures and/or operational restrictions shall be specified in the operations manual for any operation on more than one type or variant.

**ORO.FC.145 Provision of training**

- (a) All the training required in this Subpart shall be conducted:
  - (1) in accordance with the training programmes and syllabi established by the operator in the operations manual;
  - (2) 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 Annex I (Part-FCL) to Regulation (EU) No 1178/2011.

- (b) When establishing the training programmes and syllabi, the operator shall include the mandatory elements for the relevant type as defined in the data established in accordance with Regulation (EC) No 1702/2003.
- (c) Training and checking programmes, including syllabi and use of individual flight simulation training devices (FSTDs), shall be approved by the competent authority.
- (d) 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 appropriate.
- (e) 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.

#### **ORO.FC.200 Composition of flight crew**

- (a) There shall not be more than one inexperienced flight crew member in any flight crew.
- (b) The commander may delegate the conduct of the flight to another pilot suitably qualified in accordance with Annex I (Part-FCL) to Regulation (EU) No 1178/2011 provided that the requirements of ORO.FC.105(b)(1), (b)(2) and (c) are complied with.
- (c) Specific requirements for aeroplane operations under instrument flight rules (IFR) or at night.
  - (1) The minimum flight crew shall be two pilots for all turbo-propeller aeroplanes with a maximum operational passenger seating configuration (MOPSC) of more than nine and all turbojet aeroplanes.
  - (2) Aeroplanes other than those covered by (c)(1) shall be operated with a minimum crew of two pilots, unless the requirements of ORO.FC.202 are complied with, in which case they may be operated by a single pilot.
- (d) Specific requirements for helicopter operations.
  - (1) For all operations of helicopters with an MOPSC of more than 19 and for operations under IFR of helicopters with an MOPSC of more than 9:
    - (i) the minimum flight crew shall be two pilots; and
    - (ii) the commander shall be the holder of an airline transport pilot licence (helicopter) (ATPL(H)) with an instrument rating issued in accordance with Annex I (Part-FCL) to Regulation (EU) No 1178/2011.
  - (2) Operations not covered by (d)(1) may be operated by a single pilot under IFR or at night provided that the requirements of ORO.FC.202 are complied with.

#### **ORO.FC.A.201 In-flight relief of flight crew members**

- (a) The commander may delegate the conduct of the flight to:
  - (1) another qualified commander; or
  - (2) for operations only above flight level (FL) 200, a pilot who complies with the following minimum qualifications:
    - (i) ATPL;
    - (ii) conversion training and checking, including type rating training, in accordance with ORO.FC.220;
    - (iii) all recurrent training and checking in accordance with ORO.FC.230 and ORO.FC.240;
    - (iv) route/area and aerodrome competence in accordance with ORO.FC.105.
- (b) The co-pilot may be relieved by:
  - (1) another suitably qualified pilot;
  - (2) for operations only above FL 200, a cruise relief co-pilot that complies with the following minimum qualifications:
    - (i) valid commercial pilot licence (CPL) with an instrument rating;

- (ii) conversion training and checking, including type rating training, in accordance with ORO.FC.220 except the requirement for take-off and landing training;
  - (iii) recurrent training and checking in accordance with ORO.FC.230 except the requirement for take-off and landing training.
- (c) A flight engineer may be relieved in flight by a crew member suitably qualified in accordance with applicable national rules.

**ORO.FC.202 Single-pilot operations under IFR or at night**

In order to be able to fly under IFR or at night with a minimum flight crew of one pilot, as foreseen in ORO.FC.200(c)(2) and (d)(2), the following shall be complied with:

- (a) The operator shall include in the operations manual 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.
- (b) 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.
- (c) 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.
- (d) For aeroplane operations at night the pilot shall have:
  - (1) a minimum of 15 hours flight time at night which may be included in the 50 hours flight time under IFR in (c)(1); and
  - (2) completed during the preceding 90 days on the relevant type or class of aeroplane:
    - (i) three take-offs and landings at night in the single pilot role; or
    - (ii) a night take-off and landing check.
- (e) For helicopter operations under IFR the pilot shall have:
  - (1) 25 hours total IFR flight experience in the relevant operating environment; and
  - (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

- (3) completed during the preceding 90 days:
- (i) five IFR flights as a single pilot, including three instrument approaches, carried out on a helicopter approved for this purpose; or
  - (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).

**ORO.FC.205 Command course**

- (a) For aeroplane and helicopter operations, the command course shall include at least the following elements:
- (1) training in an FSTD, which includes line oriented flight training (LOFT) and/or flight training;
  - (2) the operator proficiency check, operating as commander;
  - (3) command responsibilities training;
  - (4) line training as commander under supervision, for a minimum of:
    - (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) crew resource management training.

**ORO.FC.215 Initial operator's crew resource management (CRM) training**

- (a) The flight crew member shall have completed an initial CRM training course before commencing unsupervised line flying.
- (b) Initial CRM training shall be conducted by at least one suitably qualified CRM trainer who may be assisted by experts in order to address specific areas.
- (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 Annex I (Part-FCL) to Regulation (EU) No 1178/2011.

**ORO.FC.220 Operator conversion training and checking**

- (a) CRM training shall be integrated into the operator conversion training course.
- (b) Once an operator conversion course has been commenced, the flight crew member 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.
- (c) The amount of training required by the flight crew member for the operator's conversion course shall be determined in accordance with the standards of qualification and experience specified in the operations manual, taking into account his/her previous training and experience.
- (d) The flight crew member shall complete:
- (1) the operator proficiency check and the emergency and safety equipment training and checking before commencing line flying under supervision (LIFUS); and
  - (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.

- (e) In the case of aeroplanes, pilots that have been issued a type rating based on a zero flight-time training (ZFTT) course shall:
- (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 operations manual;
  - (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 Regulation (EC) No 1702/2003. 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 operations manual;
  - (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 Regulation (EC) No 1702/2003.

#### **ORO.FC.230 Recurrent training and checking**

- (a) Each flight crew member shall complete recurrent training and checking relevant to the type or variant of aircraft on which they operate.
- (b) *Operator proficiency check*
- (1) Each flight crew member shall complete operator proficiency checks as part of the normal crew complement to demonstrate competence in carrying out normal, abnormal and emergency procedures.
  - (2) 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.
  - (3) The validity period of the operator proficiency check shall be six calendar months. For operations under VFR by day of performance class B aeroplanes conducted during seasons not longer than eight consecutive months, one operator proficiency check shall be sufficient. The proficiency check shall be undertaken before commencing commercial air transport operations.
  - (4) The flight crew member 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 operator proficiency check in only one of the relevant types held. The operator proficiency check 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 operator proficiency check shall be contained in the operations manual.
  - (5) Notwithstanding ORO.FC.145(a)(2), 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.
- (c) *Line check*
- (1) Each flight crew member shall complete a line check on the aircraft to demonstrate competence in carrying out normal line operations described in the operations manual. The validity period of the line check shall be 12 calendar months.
  - (2) Notwithstanding ORO.FC.145(a)(2), line checks may be conducted by a suitably qualified commander nominated by the operator, trained in CRM concepts and the assessment of CRM skills.
- (d) *Emergency and safety equipment training and checking*
- Each flight crew member 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.
- (e) *CRM training*
- (1) Elements of CRM shall be integrated into all appropriate phases of the recurrent training.
  - (2) Each flight crew member 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.

- (f) Each flight crew member 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.
- (g) The validity periods mentioned in (b)(3), (c) and (d) shall be counted from the end of the month when the check was taken.
- (h) When the training or checks required above are undertaken within the last three months of the validity period, the new validity period shall be counted from the original expiry date.

#### **ORO.FC.235 Pilot qualification to operate in either pilot's seat**

- (a) 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 operations manual. The check may be conducted together with the operator proficiency check prescribed in ORO.FC.230(b).
- (b) The additional training and checking shall include at least the following:
  - (1) an engine failure during take-off;
  - (2) a one-engine-inoperative approach and go-around; and
  - (3) a one-engine-inoperative landing.
- (c) In the case of 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 operator proficiency check the commander completes his/her training or checking from the normally occupied seat.
- (d) When engine-out manoeuvres are carried out in an aircraft, the engine failure shall be simulated.
- (e) 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.
- (f) The pilot relieving the commander shall have demonstrated, concurrent with the operator proficiency checks prescribed in ORO.FC.230(b), 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.
- (g) The pilot other than the commander occupying the commander's seat shall demonstrate practice of drills and procedures, concurrent with the operator proficiency checks prescribed in ORO.FC.230(b), 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.

#### **ORO.FC.240 Operation on more than one type or variant**

- (a) The procedures or operational restrictions for operation on more than one type or variant established in the operations manual 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.
- (b) When a flight crew member 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.
- (c) Point (a) 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. Point (b) shall not apply to operations of performance class B aeroplane if they are limited to single-pilot classes of reciprocating engine aeroplanes.

**ORO.FC.A.245 Alternative training and qualification programme**

- (a) The aeroplane operator having appropriate experience may substitute one or more of the following training and checking requirements for flight crew by an alternative training and qualification programme (ATQP), approved by the competent authority:
- (1) SPA.LVO.120 on flight crew training and qualifications;
  - (2) conversion training and checking;
  - (3) differences training and familiarisation training;
  - (4) command course;
  - (5) recurrent training and checking; and
  - (6) operation on more than one type or variant.
- (b) The ATQP shall contain training and checking that establishes and maintains at least an equivalent level of proficiency achieved by complying with the provisions of ORO.FC.220 and ORO.FC.230. The level of flight crew training and qualification proficiency shall be demonstrated prior to being granted the ATQP approval by the competent authority.
- (c) The operator applying for an ATQP approval shall provide the competent authority with an implementation plan, including a description of the level of flight crew training and qualification proficiency to be achieved.
- (d) In addition to the checks required by ORO.FC.230 and FCL.060 of Annex I (Part-FCL) to Regulation (EU) No 1178/2011, each flight crew member shall complete a line oriented evaluation (LOE) conducted in an FSTD. The validity period of an LOE shall be 12 calendar months. The validity period shall be counted from the end of the month when the check was taken. When the LOE is undertaken within the last three months of the validity period, the new validity period shall be counted from the original expiry date.
- (e) After two years of operating with an approved ATQP, the operator may, with the approval of the competent authority, extend the validity periods of the checks in ORO.FC.230 as follows:
- (1) Operator proficiency check to 12 calendar months. The validity period shall be counted from the end of the month when the check was taken. When the check is undertaken within the last three months of the validity period, the new validity period shall be counted from the original expiry date.
  - (2) Line check to 24 calendar months. The validity period shall be counted from the end of the month when the check was taken. When the check is undertaken within the last six months of the validity period, the new validity period shall be counted from the original expiry date.
  - (3) Emergency and safety equipment checking to 24 calendar months. The validity period shall be counted from the end of the month when the check was taken. When the check is undertaken within the last six months of the validity period, the new validity period shall be counted from the original expiry date.

**ORO.FC.A.250 Commanders holding a CPL(A)**

- (a) The holder of a CPL(A) (aeroplane) shall only act as commander in commercial air transport on a single-pilot aeroplane if:
- (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; or
  - (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.
- (b) For operations under VFR by day of performance class B aeroplanes (a)(1) shall not apply.



**ORO.FC.H.250 Commanders holding a CPL(H)**

- (a) The holder of a CPL(H) (helicopter) shall only act as commander in commercial air transport on a single-pilot helicopter if:
- (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 operations manual on the basis of two hours of flight time as co-pilot for one hour flight time as pilot-in command;
  - (2) when operating under visual meteorological conditions (VMC) at night, he/she has:
    - (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.

## SUBPART CC

**CABIN CREW****ORO.CC.005 Scope**

This Subpart establishes the requirements to be met by the operator when operating an aircraft with cabin crew.

## SECTION 1

**General requirements****ORO.CC.100 Number and composition of cabin crew**

- (a) The number and composition of cabin crew shall be determined in accordance with 7.a of Annex IV to Regulation (EC) No 216/2008, taking into account operational factors or circumstances of the particular flight to be operated. At least one cabin crew member shall be assigned for the operation of aircraft with an MOPSC of more than 19 when carrying one or more passenger(s).
- (b) For the purpose of complying with (a), the minimum number of cabin crew shall be the greater of the following:
- (1) the number of cabin crew members established during the aircraft certification process in accordance with the applicable certification specifications, for the aircraft cabin configuration used by the operator; or
  - (2) if the number under (1) has not been established, the number of cabin crew established during the aircraft certification process for the maximum certified passenger seating configuration reduced by 1 for every whole multiple of 50 passenger seats of the aircraft cabin configuration used by the operator falling below the maximum certified seating capacity; or
  - (3) one cabin crew member for every 50, or fraction of 50, passenger seats installed on the same deck of the aircraft to be operated.
- (c) For operations where more than one cabin crew member is assigned, the operator shall nominate one cabin crew member to be responsible to the pilot-in-command/commander.

**ORO.CC.110 Conditions for assignment to duties**

- (a) Cabin crew members shall only be assigned to duties on an aircraft if they:
- (1) are at least 18 years of age;
  - (2) have been assessed, in accordance with the applicable requirements of Annex IV (Part-MED) to Regulation (EU) No 1178/2011, as physically and mentally fit to perform their duties and discharge their responsibilities safely; and
  - (3) have successfully completed all applicable training and checking required by this Subpart and are competent to perform the assigned duties in accordance with the procedures specified in the operations manual.