NCC Operations Manual

Revision 1.0

Effective Date: 25/08/2016

The following appendices and documents are an integral part of this Operations Manual:

APPENDIX CHECKLISTS:

* AM – Accountable Manager
* CMM - Compliance-Monitoring-Manager
* MM - Maintenance-Manager
* OM - Operations-Manager
* SM - Safety-Manager

APPENDIX DANGEROUS GOODS

* DG Reference List

APPENDIX DEICE

* AEA documentation

APPENDIX FORMS

* NCC Declaration
* Safety Report Form

APPENDIX REGULATION:

* Consolidated OPS regulation (incl. Part-NCC & Part-ORO) and subsequent amendments
* Standardized European Rules of the Air (Part-SERA)
* Flight Crew Licencing (Part-FCL)

APPENDIX TRAINING MATERIAL

* Training Dangerous Goods
* Training ACAS

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# Safety Policy

Ref.: ORO.GEN.200 (a)(2), AMC1 ORO.GEN.200(a)(1);(2);(3);(5)(e), GM1 ORO.GEN.200(a)(2), AMC1 ORO.GEN.200(a)(5)

*We should continually strive towards high safety standards, comply with all applicable legal requirements, meet all applicable standards and consider best practices. The management will ensure that appropriate resources are provided to fulfill these goals.*

*All personnel is encouraged to contribute to our safety goals by submitting safety forms and occurrence reports whenever relevant – also when not required by law. The purpose of safety reporting and internal investigations is to improve safety, not to apportion blame to individuals.*

Signed on the 25/08/2016 by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of AM

# Operator’s Reference List (OREF)

Ref. AMC1 ORO.GEN.200(a)(5), AMC1 ORO.GEN.220(b), NCC.GEN.135, AMC1 NCC.GEN.135

### Scope of activities

We conduct NCC flight operations for our owner with the aircraft and personnel listed on this OREF List. We have established that we are a non-complex organization in accordance with AMC1 ORO.GEN.200(b).

### Facilities

|  |  |
| --- | --- |
| Headquarter and administration | [Name, address and phone of the NCC operator] |
| Operating base and hangar | [Name and address of the operating base] |

### Aircraft

|  |  |  |
| --- | --- | --- |
| **Registration, Type, CAMO and emergency equipment carried** | **Crew & passengers** | **Approvals and capabilities** |
| N12345 [AC Type]  CAMO: [Name of CAMO]  AOG Phone: [AOG phone no]  Emergency equipment carried:  8 yellow life jackets  1 yellow life raft  First aid kit  Pyrotechnics  1 handheld transceiver  1 ELT  etc… | Crew requirement:  X pilots rated on the type and holding minimum a class II medical  Max passengers: XX | Flight rules:   * VFR, night-VFR, IFR   Approved for:   * RVSM * PBN incl. LPV approaches |

#### Operator Approvals

|  |
| --- |
| * RVSM * MNPS   *Note: we do not hold a Low Visibility Approval, therefore take-off and landing with an RVR of less than 400 meters is not allowed*  *Note 2: We do not hold a dangerous goods approval.* |

#### Standard Noise Abatement Procedures for [ACTYPE]

|  |  |
| --- | --- |
| NADP 1 (Close in noise sensitive area) | @ 800ft climb power cont. V2 plus 10  @ 3000ft flaps 0 cruise climb speed |
| NADP 2 (Distant noise sensitive area) | @ 800 ft flaps 0, climb power, flaps up speed  @ 3000ft cruise climb speed |

### Maximum operational passenger seating configuration (MOPSC)

|  |
| --- |
| For any aircraft we will operationally limit ourselves to not operate the aircraft with a maximum operational passenger seating configuration (MOPSC) of more than 19. |

### Contracted activities

|  |  |
| --- | --- |
| **Activity** | **Contract partner** |
| The CAMO activity is contracted to [Name of CAMO] | Name and address of the CAMO and maintenance organisation |
| Initial and recurrent training of aircrew is contracted to [Name of ATO] | Name and address of the ATO |
| CRM training is contracted to XXX |  |

### Competent Authority

The Competent Authority for our operations is:

|  |
| --- |
| Name and contact details of the Competent Authority |

#### Personnel and nominated postholders

|  |  |  |
| --- | --- | --- |
| **Name and contact information** | **Nominations** | **Emergency contact** |
| [Name 1]  Mobile phone: []  Office phone: []  Home phone: []  Email: am@operator.com | For instance:  Accountable Manager (AM)  Operations Manager (OM)  Safety Manager (SM)  Maintenance Manager (MM)  Pilot-in-Command (PIC)  Co-Pilot (COP) | [Name of wife] (wife)  Mobile: []  [Name of child] (child)  Mobile: [] |
| [Name 2]  Mobile phone: []  Office phone: []  Home phone: []  Email: cmm@operator.com | For instance:  Compliance Monitoring Manager (CMM)  Co-Pilot (COP) | [Name of wife] (wife)  Mobile: []  [Name of child] (child)  Mobile: [] |
| [Name 3]  Mobile phone: []  Office phone: []  Home phone: []  Email: itm@operator.com | IT Manager (ITM) | N/A (not flying) |

### Organogram

Ref. AMC1 ORO.GEN.200(a)(5)(a)(4)

The management structure and lines of responsibility are as follows:

### Relevant Emergency Phone numbers

|  |  |  |
| --- | --- | --- |
| **Unit** | **Phone** | **Remark** |
| Alarm (police, ambulance, fire) | 112 | When urgent action required |
| Police | [] | When no urgent action required |
| Air Traffic Control | [] |  |
| Homebase Briefing Office | [] |  |
| Homebase switchboard | [] |  |
| Competent Authority | [] |  |
| Accident Investigation hotline | [] |  |

### Record Keeping

Ref. ORO.MLR.115

Record keeping and document storage is primarily handled electronically by the forwarding of emails to the following mailboxes:

|  |  |
| --- | --- |
| **Documents** | **Email** |
| Flight documentation | [ncc-archive@operator.com](mailto:ncc-archive@operator.com) |
| OPS Manual | ncc-archive@operator.com |
| License, medical & training records | ncc-om@operator.com |
| Safety reports & occurrence reports | ncc-om@operator.com & ncc-sm@operator.com |

Other relevant documents must be stored in the shared flightops folder on the corporate IT system. The AM, OM, CMM and ITM should have full access to all documents and mailboxes. Other crewmembers should only have read access to the flightops folder.

# Management and Safety Management System

Ref.: ORO.GEN.200

Our organization is small, so the management system is kept simple and adapted to the scale and scope of the operation. The system consists of the following key elements:

* an organizational structure based on nominated postholders and associated responsibilities. One person may be nominated for several posts.
* a set of checklists and reporting forms
* the NCC Operator’s Reference List (OREF)
* a document storage and record keeping system.
* A checklist based compliance monitoring system
* An emergency response plan

Safety management is integrated into the overall management system.

The following responsibilities are established:

### Responsibility of all personnel

Ref.: AMC1 ORO.GEN.200(a)(1);(2);(3);(5)(e), ORO.GEN.200(a)(3), GM1 ORO.GEN.200(a)(3)(d)

* All personnel should continually strive towards the highest safety standards, comply with all applicable legal requirements, meet all applicable standards and consider best practices
* In case of inspections by an authority personal shall verify ID and grant access to facilities in accordance with ORO.GEN.140 and immediately contact the AM and OM
* All personnel shall submit a “Safety Form” whenever a safety concern arises, whenever the person has ideas that could lead to the improvement of safety or is made aware of new safety enhancing procedures, equipment etc. that could be of relevance for the operator. The person submitting a safety form should retain a copy of the form.
* All personnel should inform the AM and OM in case they find errors or omissions in the Operations Manual
* Upon receipt of a new copy of the operations manual all personnel must confirm receipt by replying to the email; then discard previous copies (whether digital or printed), familiarize themselves with relevant changes and take care to use the new version.
* All personnel shall submit for registration and storage copies of license, medical and training documentation to the email address specified in the OREF List. See ORO.MLR.115 for details on which documents must be stored and minimum storage period.
* All nominated postholders must complete the attached checklists and/or procedures relevant for their role at the indicated intervals

### Responsibility and authority of the Accountable Manager (AM)

Ref.: ORO.GEN.200(a)(1), ORO-GEN.150, ORO.GEN.155, AMC1 ORO.GEN.200(a)(1);(2);(3);(5)(e), AMC1 ORO.GEN.200(a)(2), ORO.GEN.205, ORO.GEN.210, ORO.GEN.215, NCC.GEN.115

* The AM is ultimately accountable for the safety of the operation.
* The AM has the authority for ensuring that all activities can be financed and carried out in accordance with the applicable requirements.
* The AM shall be responsible for establishing and maintaining an effective management system, decide on the organizational structure and size, delegate tasks and nominate postholders as appropriate. The AM remains accountable also when tasks are delegated.
* The AM shall ensure that personnel is appropriately qualified for the assigned tasks and safety responsibilities and have the necessary language proficiency in the English language to communicate with other crewmembers as necessary
* The AM shall ensure that appropriate resources are available for all personnel to fulfill their responsibilities and that facilities are adequate for the performance and management of all planned tasks
* The AM shall ensure that a Declaration is submitted, updated, cancelled and stored in accordance with ORO.DEC.100 and AMC1 ORO.DEC.100(d).
* The AM shall ensure following up on any findings in accordance with ORO-GEN.150.
* The AM shall ensure the implementation of measures in accordance with ORO.GEN.155 Immediate reaction to a safety problem.
* The AM shall ensure that when contracting or purchasing any part of its activity, the contracted or purchased service or product conforms to the applicable requirements and are in accordance with ORO.GEN.205, AMC1 ORO.GEN.205, GM1 ORO.GEN.205 and GM2 ORO.GEN.205. Further, the AM must ensure that the OREF List provides adequate information about the contracted activity for all personnel to perform their duties.

### Responsibility and authority of the Operations Manager (OM)

Ref.: ORO.GEN.160, AMC1 ORO.GEN.200(a)(1);(2);(3);(5)(b), AMC1 ORO.GEN.200(a)(4), AMC1 ORO.GEN.200(a)(5), AMC1 ORO.MLR.115

* The OM shall ensure that occurrence reporting is handled in accordance with ORO.GEN.160 and the relevant authorities are notified in due time.
* The OM has the authority to maintain and update the Operations Manual while observing the principles in AMC1 ORO.MLR.100
* The OM shall ensure that a revised Operations Manual is distributed to all personnel listed on the OREF list. The OM shall consult with the AM before making modifications to safety critical parts of the manual and before modifying responsibilities of nominated postholders. The OM must verify that all intended recipients have confirmed receipt of the updated manual. The OM must keep an electronic archive of old versions of the Operations Manual.
* The OM must manage safety relevant changes according to the change management process
* The OM must ensure that all personnel receive safety training as appropriate for their safety responsibilities
* The OM must ensure that copies of license, medical and training records are stored and summary list for the relevant personnel is updated in accordance with ORO.MLR.115 and AMC1 ORO.MLR.115

### Responsibilities and authority of the Safety Manager (SM)

Ref.: ORO.GEN.200(a)(3), GM1 ORO.GEN.200(a)(3), AMC1 ORO.GEN.200(a)(4)

* The SM is the unique focal point as regards the development, administration and maintenance of the operator’s safety management system
* The SM shall ensure that all incoming “Safety Forms” and occurrence reports are evaluated and followed up in writing with notification of action taken and how the effectiveness of any action will be measured. The SM shall ensure that all safety related communication is stored.
* The SM shall ensure that a safety meeting is held whenever the SM or any other personnel finds it relevant or requests it. The meeting can be formal or informal but whenever relevant a “Safety Report Form” should be submitted for processing and storage.
* The SM should stay informed about the latest development regarding flight safety by for instance subscribing to accident reports, relevant aviation magazines, safety related newsletters and other safety related publication from for instance the AOPA Air Safety Institute, EGAST, skybrary etc.
* The SM shall ensure that knowledge of relevant incidents and accidents is disseminated, so that other persons and operators may learn from them.
* The SM shall ensure that safety critical information, especially relating to assessed risks and

identified hazards is communicated to relevant personnel.

* The SM should regularly review the operation in accordance with the hazard checklist and fill in and process a “Safety Report Form” whenever relevant
* The SM shall take the initiative to implement safety related changes to the Operations Manual in cooperation with the OM and ensure that personnel is informed why particular actions are taken and why safety procedures are introduced or changed

### Responsibility of all flight crew

* All flight crew shall be aware of and have the responsibilities as defined in NCC.GEN.105, GM1 NCC.GEN.105(e)(2) and AMC1 NCC.GEN.105(g)

### Responsibility and authority of the Pilot-in-Command (PIC)

Ref.: ORO.GEN.110(c), AMC1 ORO.GEN.110(c), AMC2 ORO.GEN.110(e), AMC1 ORO.MLR.110

* The PIC has the responsibilities as defined in NCC.GEN.106
* The PIC must report hazardous flight conditions in accordance with AMC1 NCC.GEN.106(c)
* The PIC must report violations in accordance with AMC1 NCC.GEN.106 (e)
* The PIC shall comply with laws, regulations and procedures in accordance with NCC.GEN.110
* The PIC shall ensure documents are carried in accordance with NCC.GEN.140 and associated AMCs
* The PIC must ensure a flight recorder, if applicable, is handled according to NCC.GEN.145
* The PIC must ensure that whenever passengers are onboard the aircraft at least one crew member is onboard or adjacent to the aircraft and can alert relevant airport services in case of an emergency
* The PIC must ensure that sterile flight crew procedures are applied in accordance with AMC1 ORO.GEN.110(f)
* In case occurrence the operator is required to submit an occurrence report in accordance with ORO.GEN.160 and AMC1 ORO.GEN.160 the PIC must submit his report to the OM and SM within 24 hours. The OM should also be notified by telephone.
* The PIC must record each flight or series of flights in the Aircraft Journey Log
* The PIC must record any incidents, observations or defects in the aircraft log and inform the Maintenance Manager (MM) about defects and other relevant observations which could require maintenance.
* Flight documentation required to be stored in accordance with ORO.MLR.115 must be scanned and forwarded to the email address listed on the OREF list.

### Responsibility and authority of the Co-Pilot (COP)

* When two pilots are required, the Co-Pilot is responsible to the PIC and will carry out any duties delegated to him by the PIC. Should the PIC become incapacitated the second in command will assume command and carry out all the responsibilities of the PIC.

### Responsibility and authority of the IT Manager (ITM)

* The ITM must ensure that IT systems are operational and that back-up of data is performed in accordance with AMC1 ORO.GEN.220(b)
* The ITM serves as emergency focal point in case of an emergency where no other nominated person is available with access to the relevant data archive.

### Responsibility and authority of the Compliance Monitoring Manager (CMM)

Ref. ORO.GEN.200(6), GM1 ORO.GEN.200(a)(6)

* The CMM must ensure that the operator complies with the OPS manual and relevant rules and regulations
* The CMM must have full access to all documents relevant to his function
* The CMM must annually conduct a Compliance Monitoring Review in accordance with the Compliance Monitoring checklist. Any findings must be communicated by email through a “Non-Compliance Report” to the AM and the CMM must follow up that action is taken.
* The CMM must ensure that checklists items relating to his own data, records and areas of responsibility are verified by another nominated postholder in order to ensure independence

### Responsibility and authority of the Maintenance Manager (MM)

* The MM shall be the primary liason with the CAMO and maintenance facilities
* The MM has the authority to order and approve maintenance tasks and to ground the aircraft
* In case of significant unscheduled maintenance tasks the MM should consult with the AM

### Updates to the Operations Manual

The OM will update and distribute by email new versions of the Operations Manual. The Operations Manual shall always be distributed as a compressed zip-file that includes the basic manual and all relevant appendices, forms and checklist. The Operations Manual is always reissued in its entirety together with an email that explains the changes from the latest revision.

Recipients will be listed on the OREF list. A copy shall also be sent to the email archive (see OREF) for record keeping. Every new version shall have an updated version number and effective date on the frontpage. All personnel is required to confirm by email the receipt of a new copy of the Operations Manual.

### Emergency Response Plan

Any person who becomes aware of an existing or imminent emergency situation should as far as practicable take action to stop or limit the emergency.

As soon as practicable the person should notify the AM. Should the AM not be available, contact should be attempted to the all personnel listed in the OREF list starting from the top. The first available person in the contact list that can be reached will coordinate the emergency effort until the AM becomes available and can lead the emergency effort. In case of no personel from the flight department is available to handle the emergency the IT Manager will coordinate the emergency effort and will have access to relevant data in the electronic archive.

The emergency coordinator should first seek to confirm the emergency with relevant authorities such as Air Traffic Control, police etc.

At the discretion of the emergency coordinator the emergency contact information on the OREF list should be used to inform relevant authorities about the emergency.

As soon as practicable after the nature of the emergency has been confirmed the emergency co-ordinator should, if relevant, use the emergency contact listed in the OREF list to contact relatives and inform about the nature of the emergency and any factual information that can be given.

# Flight Operation

Ref. AMC2 ORO.MLR.100

### Operational control system

Ref. ORO.FC.105

The OM has the operational control over all operations. Before undertaking an operation the OM must be satisfied that it can be performed safely and within the limitations of the aircraft and crew.

The OM designates the crew for an operation in accordance with ORO.FC.105. The PIC assumes responsibility for the safety of the operation and must prepare and execute it according to the instructions in this manual.

### Record-keeping

Records shall be stored in accordance with ORO.MLR.115. Records are stored by sending them electronically to the email addresses specified in the OREF list.

In accordance with AMC1 NCC.POL.110(c) whenever a signature is required an email and attachments sent from the crewmembers personal email address shall be considered as signed by that person at the date and time of the email.

### Standard operating procedures (SOPs) & emergency procedures

We apply the standard operating procedures described in the AFM. The provided checklists must be used for both normal and emergency procedures.

### Sterile Flight Crew Procedures

Sterile flight crew procedures must be applied in accordance with AMC1 ORO.GEN.110(f) items (a) and (b)

### Minimum equipment list (MEL)

The Minimum Equipment List (MEL) is a document that lists the equipment that may be temporarily inoperative, subject to certain conditions, at the commencement of flight. The MEL should be consulted and used as indicated in the MEL in such cases.

The MEL is maintained by the OM in accordance with ORO.MLR.105.

### Flight time limitations

In accordance with Article 8 of EU regulation 965/2012 our operations are subject to “*applicable national flight time limitation legislation until the related implementing rules are adopted and apply*”.

Since there are no such national flight time limitations for non-commercial operation we will apply the general principles of NCC.GEN.105.

In addition to these, before takeoff, all crew members must make an assessment if flight safety may be negatively impacted by their fatigue status based on a consideration of the following factors:

* How many hours they have been awake and the quality of their last sleep and general fatigue status
* If the flight will overlap with their circadian low
* How demanding work or sparetime activities they have been involved in since their last sleep
* How demanding the environment of the flight will be with respect to weather, familiarity with the destination and if the flight and/or landing will be in daylight or not

If based on this assessment any crew member has concerns over the safety impact of his fatigue status the flight should not be initiated.

The mitigating measures for controlled rest in GM1 NCC.GEN.106(d) may be applied at the discretion of the PIC.

### Composition of flight crew

Ref. ORO.FC.100, AMC1 ORO.FC.100(c)

The crew composition and licensing shall be in accordance with ORO.FC.100 and the OREF list of this manual.

Pilots with an operational multi-pilot limitation (OML) on their medical shall only operate when the other pilot is fully qualified on the relevant type of aircraft, is not subject to an OML and has not attained the age of 60 years

### Airworthiness

The airworthiness of the aircraft shall be ensured by the MM either directly or through contracting.

### Personnel qualifications and training

Ref. ORO.FC.115, ORO.FC.125, ORO.FC.130

All personnel shall be trained in accordance with relevant regulation. This shall be ensured by the OM through the use of an initial and recurrent training program that all personnel must undergo. The OM must keep a summary list of qualifications and expirations. In addition, each flight crew member is obligated to maintain personal records of their qualifications and recent experience and to ensure before flight that they meet the legal requirements to act as a crewmember on the flight.

### Differences training and familiarization training

Flight crew shall undergo differences training in accordance with ORO.FC.125. The need for differences training is established by the OM in accordance with the OM checklist. Currently no need for differences training exists.

### Operation on more than one type or variant

The OM shall determine on an individual basis if there is a need to limit the number of types or variants on which the flightcrew can operate. This should take into account flying activities undertaken by the crewmember for other operators. The crewmember is therefore obliged to inform the OM if he engages in such activities or the scale of previously reported activities are significantly changed.

### Cabin Crew

In accordance with ORO.CC.100 cabin crew is not required in our operation since we have operationally limited ourselves to not exceed a maximum operational passenger seating configuration (MOPSC) of 19.

For some operations we might bring a service assistant for passenger comfort. This person has no safety responsibility and has the status of a passenger. The safety responsibility remains fully with the flight crew.

## Normal flight operations & planning

Part NCC is directly binding on the PIC or flightcrew for the following procedures for normal flight operations. The referenced rules and AMCs applies directly without any additional operator specific requirements:

|  |  |
| --- | --- |
| **Requirement** | **Reference** |
| Fuel and oil supply | NCC.OP.130 |
| Passenger briefing | NCC.OP.140 |
| Flight preparation | NCC.OP.145 and GM1 NCC.OP.145(b) |
| Selection of alternate aerodromes | take-off alternate: NCC.OP.150  destination alternate: NCC.OP.151  with isolated aerodrome as specified in NCC.OP.105 |
| Refueling with passengers embarking, on board or disembarking | NCC.OP.155 and AMC1 NCC.OP.155 |
| Use of headset | NCC.OP.160 |
| Securing of passenger compartment and galley(s) | NCC.OP.170 |
| Meteorological conditions | NCC.OP.180, AMC1 NCC.OP.180 and GM1 NCC.OP.180 |
| Take-off conditions | NCC.OP.195 |
| Simulated situations in flight | NCC.OP.200 |
| Use of supplemental oxygen | NCC.OP.210 |
| Ground proximity detection | NCC.OP.215 |
| Approach and landing conditions | NCC.OP.225 and AMC1 NCC.OP.225 |
| Commencement and continuation of approach | NCC.OP.230 and AMC1 NCC.OP.230 |

### Flight Planning and Pre-Flight Requirements

The pilot in command must, before taking off, take all reasonable steps to ensure the flight can be safely made and must prepare and execute the flight in accordance with applicable rules and regulations, the AFM and the instructions in this manual.

The PIC shall prepare the flight in accordance with NCC.OP.145. Except for flight of short duration or low complexity an operational flight plan shall be prepared in accordance with GM1 NCC.OP.145(b).

### Documents to be carried

Ref.: NCC.GEN.140

The PIC must ensure the carriage of documents in accordance with NCC.GEN.140 and associated AMC and guidance material.

A copy of the NCC Declaration is distributed with this Operations Manuel in the APPENDIX-FORMS section.

Procedures and visual signals information for use by intercepting and intercepted aircraft may be found in SERA.11015, see APPENDIX-REGULATION.

### Use of Electronic Flight Bag (EFB)

Whenever required documentation is carried on an EFB with the intent of operational use the PIC must ensure the following before departure:

* The information on the EFB which is intended to be used must operationally be current and up-to-date
* The EFB must be sufficiently charged for the intended flight or suitable recharging facilities must be available
* The information on the EFB must be in a format that is practical and suitable for operational use
* The PIC must ensure that the failure of a an EFB will not adversely affect the safe operation of the aircraft. This may be accomplished through a combination of paper- or electronic backup and/or a planned alternative course of action.

### Ice and other contaminants — ground procedures

Ref. NCC.OP.185

The PIC must apply the procedures in the AFM regarding de- and anti-icing as supplemented by the AEA guidelines included in the DEICING attachment folder.

### Taxiing of aircraft

Taxing may be done by any qualified crewmember who has been authorized to do so by the OM. In addition the OM may authorize aircraft mechanics and others to taxi the aircraft when he is satisfied that the requirements of NCC.GEN.120(b) and GM1 NCC.GEN.120(b)(4) are fulfilled.

Taxing shall be done according to the principles of AMC1 NCC.GEN.119 and requires the use of sterile cockpit procedures, standard radio phraseology and use of light. All the requirements listed under AMC1 NCC.GEN.119(d) applies.

### Use of aerodromes and operating sites

The PIC must ensure that any aerodrome or operating site is adequate for the type of aircraft and operation concerned. The pilot must have documentation available in accordance with AMC1 NCC.OP.100 and GM1 NCC.OP.100.

### Minimum Flight Altitudes

Ref. NCC.OP.125, AMC1 NCC.OP.125

The minimum altitude/flight level at which the aircraft is permitted to fly, is governed by national regulations, ATC requirements or the need to maintain a safe margin above any significant terrain or obstacle en-route. Whichever of these requirements produces the highest altitude/flight level for a particular route will determine the minimum flight altitude for that route.

The PIC must for each flight establish minimum flight altitudes in accordance with these principles using paper and online publications such as AIPs, the Eurocontrol EAD database and the Jeppesen Airway Manual. Software capable of calculating minimum enroute altitudes may also be used. In any case the information must be current and the documentation or software used must be suitable for the relevant flight rules (IFR or VFR).

The minimum flight altitudes for IFR shall never be below the altitudes specified in SERA.5005(c)(5) for VFR operations and SERA.5015(b) for IFR operations.

### Aerodrome operating minima

Ref.: NCC.OP.110

#### General

The aerodrome operating minima should be determined by the PIC in accordance with the principles below and NCC.OP.110(c). The PIC should use current documentation which is suitable for the applicable flight rules (IFR/VFR)

The minima may be increased at the pilot’s discretion based on for instance the factors described in NCC.OP.110 (b).

In any case the minima shall not be lower than those established by the State in which the aerodrome is located, except when specifically approved by that State;

The PIC may convert reported visibility into RVR values using the principles in AMC8 NCC.OP.110.

#### VFR take-off and landing minima

The minima should allow a take-off or landing in accordance with the VFR rules as specified in SERA.5005

#### IFR take-off minima

The PIC shall determine the IFR take-off minima in accordance with AMC3 NCC.OP.110.

#### IFR landing minima

Ref.: AMC5 NCC.OP.110, AMC7 NCC.OP.110, AMC2 NCC.OP.110, NCC.OP.111, AMC9 NCC.OP.110

Whenever practical IFR approaches should be flown as stabilized approaches using continuous descent final approach (CDFA) technique. When not using the CDFA technique the minimum required RVR should be increased in accordance with AMC2 NCC.OP.110.

For instrument approaches the PIC should establish the minimum RVR or visibility in accordance with AMC5 NCC.OP.110. For a visual approach operation the RVR should not be less than 800 m as specified in AMC2 NCO.OP.110.

For instrument approaches the PIC should establish the minimum descend or decision height in accordance with NCC.OP.111.

In case of temporarily failed or downgraded equipment the PIC should use the instructions in AMC9 NCC.OP.110.

For circling approaches the PIC shall determine the minimum descend height and visibility in accordance with NCC.OP.112.

#### Use of IFR departure and approach procedures

Ref.: NCC.OP.115

Under IFR the PIC shall follow procedures in accordance with NCC.OP.115

### Noise abatement procedures

Ref.: NCO.OP.120

When no other climb procedures are prescribed by ATC or published procedures and whenever it can be done without compromising safety the PIC shall use general noise abatement procedures in accordance with OREF and NCC.OP.120 and AMC1 NCC.OP.120.

### PBN operations

Ref.: NCC.OP.116, NCC.OP.145

For PBN operations the PIC shall ensure that the aircraft is operated in conformance with the relevant navigation specification and limitations in the AFM and satisfy the requirements in NCC.OP.145.

### Oxygen supplies

The PIC shall ensure that sufficient oxygen is available to satisfy the requirements in NCC.IDE.A.195 and AMC1 NCC.IDE.A.195 for pressurized aircraft and NCC.IDE.A.200 and AMC1 NCC.IDE.A.200 for non-pressurized aircraft taking into consideration the route to be flown.

### Flight over water

For flights over water the PIC shall ensure that the aircraft carries life-jackets and rafts (if applicable) in accordance with NCC.IDE.A.220, AMC1 NCC.IDE.A.220 and AMC2 NCC.IDE.A.220.

### Survival equipment

The PIC must ensure that when operating over areas in which search and rescue would be especially difficult as defined in GM2 NCC.IDE.A.230, the aircraft shall carry survival equipment according to NCC.IDE.A.230, AMC1 NCC.IDE.A.230(a)(2), AMC1 NCC.IDE.A.230(a)(3) and AMC1 NCC.IDE.A.230(b)(2).

### Minimum equipment for flight

NCC.IDE.A.105 and NCC.IDE.A.110.

The PIC shall ensure that the aircraft equipment for the intended flight is in accordance with the MEL and the requirement in NCC.IDE.A.105 and NCC.IDE.A.110.

### Radio communication equipment

The PIC must ensure that radio communication equipment for the particular flight is in accordance with NCC.IDE.A.245.

### Navigation equipment & Transponder

The PIC must ensure that navigation equipment for the particular flight is in accordance with NCC.IDE.A.250 and transponder in accordance with NCC.IDE.A.255 and AMC1 NCC.IDE.A.255.

### Stowage of baggage and cargo

The PIC shall ensure that baggage and cargo is securely stowed in accordance with NCC.OP.135.

### Carriage of passengers

The PIC shall ensure that passengers are seated according to NCC.OP.165.

### Security procedures

Ref. ORO.SEC.100

Since we only operate with an MOPSC of less than 19 and no cabin crew there are no requirements for locking the door to the crew compartment. This measure should however be considered by the PIC particularly when carrying passengers which are not personally known to him.

### Smoking on board

Ref.: NCC.OP.175 (less restrictive than this Operator’s requirement)

Smoking is not permitted on board this operator’s aircraft

### Operations in areas of with known or forecast volcanic ash contamination

Operations in such areas should not take place unless approved by the OM after a risk assessment in accordance with GM2 ORO.GEN.200(a)(3). The approval by the OM should contain relevant instructions.

### In-flight fuel management

Ref.: NCC.OP.205

The PIC must regularly during the flight check the fuel indicators and compare the indicated total amount of fuel remaining with the calculated total in the operational flight plan and recalculate as necessary. Further the PIC must ensure that the amount of fuel remaining is not less than prescribed in NCC.OP.205(b).

### Use of TCAS

Ref.: NCC.OP.220

TCAS must be used in accordance with the AFM and the operator’s initial and recurrent training programme.

### Use of portable electronic devices

Ref.: NCC.GEN.130

The use of portable electronic devices such as cellphones, tablets and laptops is permitted. Such units must be operated in flightmode during flight.

Other devices may be permitted after an assessment of the OM in accordance with AMC1 NCC.GEN.130 and AMC2 NCC.GEN.130 and the information in GM1 NCC.GEN.130, GM2 NCC.GEN.130, GM3 NCC.GEN.130

### Handling of flight recorder recordings: Preservation, production, protection and use

Ref.: NCC.GEN.145, AMC1 NCC.GEN.145(a), AMC1 NCC.GEN.145(b)

The FDR and CVR is being regularly checked in accordance with the approved maintenance programme for each aircraft.

In case of an event or incident, it is the responsibility of the aircraft commander to ensure data recorded during the event is preserved. This may require to pull the CVR circuit breaker after an event to preserve relevant data.

## Performance operating limitations

Part NCC is directly binding on the PIC or flightcrew for the following performance and operating limitations. The referenced rules and AMC applies directly without any operator specific requirements:

|  |  |
| --- | --- |
| **Requirement** | **Reference** |
| Operating limitations | NCC.POL.100 |
| Performance — general | NCC.POL.115 |
| Max take-off mass— aeroplanes | NCC.POL.125 and AMC1 NCC.POL.125 |

### Weight and Balance

The PIC has the full responsibility for the proper loading of the aircraft and shall personally supervise or verify the loading of aircraft. Prior to a flight the PIC shall produce or verify the mass and balance documentation based on the data of official weighing report, the AFM and the principles below. The PIC shall ensure that all structural limitations in the AFM are respected.

The PIC must calculate the dry operating mass based on the following principles and in accordance with AMC1 NCC.POL.105(c)(a). Standard masses should normally be used unless the PIC suspects they are not representative for the actual load.

The masses of crew members must be established based on actual weighing or the standard masses in NCC.POL.105(c).

Passenger and baggage masses must be established based on actual weighing or the standard masses in NCC.POL.105(e) and (f). Large suitcases and similar carried in the baggage compartment separate from the passenger cabin shall be considered like “checked baggage”. When the number of passenger seats available is less than 10 the passenger mass may be determined by or on behalf of each passenger in accordance with NCC.POL.105(d)(3) allowing 4kg for clothing and 6 kg for hand-baggage.

When using actual or stated masses the principles in AMC1 NCC.POL.105(d) must be observed by the PIC.

The mass of the fuel load must be based on the actual density, if known, or in accordance with the AFM or GM1 NCC.POL.105(g).

### Mass and balance documentation

Ref.: NCC.POL.110, AMC2 NCC.POL.110(b)

The mass and balance documentation must include the data items specified in NCC.POL.110(a). In case of last minute changes a re-calculation should be made. If the PIC uses a computerized system for the mass & balance calculation he must once every 6 month verify the correctness and integrity of the output data.

### Take-off, enroute and landing performance

Based on the operational flight plan and the limitations in the AFM, the PIC must determine the maximum take-off mass in accordance with the principles in NCC.POL.120 and respecting all the following performance limitations and requirements:

* Take-off limitations according to NCC.POL.125 and AMC1 NCC.POL.125
* One engine inoperative enroute requirements according to NCC.POL.130
* Landing requirements according to NCC.POL.135 and AMC1 NCC.POL.135

The PIC should refer to the AFM for all performance data including for wet and contaminated runways.

The “adequate margin” for take-off referred to in NCC.POL.125(b)(2) and the “allowance” for landing technique referred to in NCC.POL.135 must be decided by the PIC based on a consideration of weather conditions, day/night, recent experience, obstacles, familiarity with the surroundings and other factors which the PIC finds relevant for flight safety.

## Handling of dangerous goods

Ref.: NCC.GEN.150

This operator does not hold a permission to transport dangerous goods. Dangerous goods should therefore not be carried. During boarding the flightcrew should be on the lookout for potentially dangerous goods, inform passengers they cannot bring and ask relevant questions to ensure that dangerous goods are not carried unless specifically permitted below.

#### Definition of dangerous goods

‘dangerous goods (DG)’ means articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the technical instructions or which are classified according to those instructions;

#### Classes of dangerous goods

Dangerous goods are classified into 9 groups:

|  |  |
| --- | --- |
| **Dangerous Goods Classification** | **Examples** |
| Explosives | Grenades, fireworks, flares |
| Gases | Propane, butane |
| Flammable liquids | Gasoline, methanol |
| Flammable solids and reactive substances | Magnesium, firelighters |
| Oxidizers/organic peroxides | Bleach, car body repair kits |
| Toxic/infectious substances | Rat poison, infected blood |
| Radioactive material | Medicinal or commercial isotopes |
| Corrosives | Mercury, vehicle batteries |
| Miscellaneous | Vehicle fuel system components which have contained fuel |

#### Permitted dangerous goods

Passengers and crewmembers are permitted to carry a limited amount of classified dangerous goods for personal use in their carry-on baggage, such as:

* Toiletry articles: e.g. perfume, nail polish, nail polish remover
* Small lithium and lithium-ion batteries, such as those found in portable electronic devices
* Alcoholic beverages, with an alcohol content of less than 70%
* Dry ice.

The ICAO TI’s allow the carriage of additional items under certain conditions. Please consult the list in APPENDIX-DANGEROUS-GOODS for a more exhaustive list and conditions for carriage.

In this context carry-on baggage shall mean baggage that is accessible from the passenger compartment and checked-in baggage shall mean baggage that is not accessible from the passenger compartment without the involvement of the aircrew. Where the list indicates that the operator’s approval is required, the OM shall authorize the carriage.

The PIC must submit an occurrence report in accordance with AMC1 NCC.GEN.150(e) in the event of any dangerous goods accidents or incidents.

# Training Programmes

### Operator’s Conversion Training Programme

Ref. ORO.FC.120, AMC1 ORO.GEN.110(e)

When starting or converting to a new type flightcrew shall undergo the operator’s conversion training in accordance with ORO.FCL.120

The conversion training includes:

1. a type rating course unless the crew is already rated on the type. The type rating course shall include MEL and ACAS training if applicable for the aircraft type. If the crewmember during the proficiency check performs at least one take-off and one landing in either pilot’s seat this qualification remains valid until the next recurrent training.

* an operator’s intro course which includes:
  + a safety course on relevant sections of the operation manual and safety related duties
  + training on the location and use of all emergency and safety equipment carried
  + if applicable, differences between the FSTD and the operator’s actual aircraft
  + training on the equipment installed on the aircraft as relevant to the flight crew member
  + training in sterile flight crew procedures
  + dangerous goods training
* initial CRM training as appropriate for the aircraft type unless the crewmember has previously undertaken initial CRM training or has grandfather rights acceptable to the OM

The type rating and CRM courses are contracted in accordance with the OREF list.

The operator’s intro course uses the following training material:

* The section on Dangerous Goods in the Operation Manual
* Dangerous Goods material in section APPENDIX-TRAINING-MATERIAL
* The DG Reference list in section APPENDIX-DANGEROUS-GOODS
* Guidance on sterile flight crew procedures in GM1 ORO.GEN.110(f)
* Other sections of the operations manual which are relevant to the flight crew member

The operators intro course is conducted by the OM or a person nominated by the OM.

### Operator’s Recurrent Training Programme

Ref.: AMC1 ORO.GEN.110(e)

Flightcrew shall undergo annual recurrent training. This consists of:

1. a proficiency check for the renewal of the type rating during which the crew shall demonstrate competence in carrying out normal, abnormal and emergency procedures and use of the MEL and ACAS system if applicable. If the crewmember during the proficiency check performs at least one take-off and one landing in either pilot’s seat this qualification remains valid until the next recurrent training.
2. an operator’s recurrent training course which includes:
   1. a safety course on relevant sections of the Operation Manual and safety related duties
   2. training on the location and use of all emergency and safety equipment carried
   3. if applicable, differences between the FSTD and the operator’s actual aircraft
   4. training on the equipment installed on the aircraft as relevant to the flight crew member
   5. training in use of MEL
   6. training in the use of ACAS
   7. training in sterile flight crew procedures
   8. dangerous goods training
3. a 2 hour CRM training session in case of multi pilot aircraft

The operator’s recurrent training course uses the following training material:

1. The section on Dangerous Goods in the Operation Manual
2. Dangerous Goods material in section APPENDIX-TRAINING-MATERIAL
3. The DG Reference list in section APPENDIX-DANGEROUS-GOODS
4. Guidance on sterile flight crew procedures in GM1 ORO.GEN.110(f)
5. The aircraft MEL
6. The aircraft AFM section on ACAS and the ACAS material in APPENDIX-TRAINING-MATERIAL
7. Other sections of the operations manual which are relevant to the flight crew member

The proficiency check and CRM course is contracted in accordance with the Reference Sheet. The operator’s safety course is conducted by the OM or a person nominated by the OM.

### Compliance Monitoring Training Programme

The compliance monitoring training programme consists of training in the following subjects:

1. a general introduction to the operator’s type of operation and facilities
2. training in the Operation Manual
3. the operator’s management and safety management system
4. the operator’s record keeping system
5. the operator’s safety policy
6. the compliance monitoring checklist
7. compliance monitoring principles

The compliance monitoring training is conducted by the OM or a person nominated by the OM.