

## OM-C © 2014 by Mali Air

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## **EXPLANATIONS AND DEFINITIONS**

Please refer to the Jeppesen Route Manual and OM-A 1.1.4 and 1.1.5



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## **0 MANUAL ADMINISTRATION**

## 0.1 CONTENT

## 0.2 RECORD OF REVISIONS

Rev. No.	Page(s)	Date
1	all pages	29.03.2013
2	All pages	28.04.2014
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If a revision has to be made a complete revision of OM-C will be distributed to all recipients concerned.



## 0.3 LIST OF EFFECTIVE PAGES

Revision	Date	Page	Revision	Date	Page
1	28.04.2012	1	1	28.04.2012	16
1	28.04.2012	2	1	28.04.2012	17
1	28.04.2012	3			
1	28.04.2012	4			
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1	28.04.2012	12			
1	28.04.2012	13			
1	28.04.2012	14			
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## 1 MINIMUM FLIGHT LEVEL/ALTITUDE

#### 1.1 GENERAL

When establishing minimum flight altitudes the Commander shall take into account the following factors:

- the accuracy with which the position of the airplane can be determined
- possible inaccuracies in aeronautical charts
- the probable inaccuracies in the indications of the altimeters used
- corrections for temperature and pressure variations from standard values
- the characteristics of the terrain (e.g. sudden changes in the elevation) along the route or in the areas where operations are to be conducted
- the probability of encountering unfavourable meteorological conditions (e.g. severe turbulence and descending air currents)
- Aircraft performance and Oxygen requirements
- ATC requirements

Please also refer to OM-A Chapter 8.1.3 Minimum Flight Altitudes

#### 1.2 DEFINITIONS

Definitions related to minimum flight levels and altitudes are specified in OM-A Chapter 8.1.3 Minimum Flight Altitudes

#### 1.3 CALCULATION

Instructions for the calculation of minimum altitudes are contained in OM-A Chapter 8.1.3 Minimum Flight Altitudes

#### 1.4 OPERATIONAL FLIGHT PLAN

The minimum off-route altitude between waypoints is specified for each route segment on the Operational Flight Plan produced by the Flight-Star Software.

Please also refer to OM-A Chapter 8.1.3 (Minimum Flight Altitudes) and OM-B Chapter 5 (Flight Planing)

#### 1.5 JEPPESEN CHARTS

The minimum flight level or altitude applicable to a particular route or airspace is specified in the AIP published by the relevant State authority. This information is reproduced on the Enroute, Area and SID/STAR charts contained in the Jeppesen Route Manual.



Further explanation is provided in the INTRODUCTION section of the Jeppesen Route Manual and in the AIR TRAFFIC CONTROL section of the Jeppesen Route Manual.



## 2 OPERATING MINIMA FOR DEPARTURE, DESTINATION AND ALTERNATE AERODROMES

#### 2.1 GENERAL

Operating Minima for Departure, Destination and Alternate Aerodromes are contained in the Jeppesen Airway Manual printed on separate pages prior to the aerodrome approach charts or alternatively at the foot of the relevant approach procedure chart page.

Information on the calculation, presentation and application of aerodrome operating minima for is contained in OM-A Chapter 8.1.4 to 8.1.6



#### 3 COMMUNICATION FACILITIES AND NAVIGATION AIDS

#### 3.1 GENERAL

Information on communication facilities and navigational aids can be found in:

- Approach, Airport, SID/STAR and Enroute Charts contained in the Jeppesen Route Manual
- RADIO AIDS section of the Jeppesen Route Manual
- ENROUTE and CHART NOTAM's section of the Jeppesen Route Manual

The Nominated Person Flight Operation shall ensure that operations are only conducted along such routes or within such areas for which:

- Ground facilities and services (meteorological information's included) are provided;
- The performance of the aeroplane intended to be used is adequate to comply with minimum flight altitude requirements;
- The equipment of aeroplane intended to be used meets the minimum requirements for the planned operation;
- Navigation Database supplier holds as minimum a Type 2 Letter of Acceptance (LoA);
- Appropriate maps and charts are available;

The Nominated Person Flight Operation shall ensure that communication facilities and navigation aids to be used during all flights are selected through the latest edition of the available Jeppesen documentation. Furthermore Commanders shall ensure that the latest edition of the Jeppesen documentation in hard copy or electronically (as approved for the aeroplane) is ready at hand during flight.



#### 4 UNWAY DATA AND AERODROME FACILITIES

#### 4.1 GENERAL

Detailed information and data concerning runways and aerodrome facilities is contained in the following references:

- Jeppesen Route Manual (i.e. on the Airport Charts, in the AIRPORT DIRECTORY section of the Jeppesen Route Manual, and in the CHART NOTAMs section of the Jeppesen Route Manual).
- Operations Manual Part C, Chapter 12 Aerodrome Categorisation for Flight Crew Competence Qualification.

The Nominated Person Flight Operation shall ensure that flights are only conducted towards aerodromes where runway data and the necessary facilities, depending on the reported and forecasted meteorological conditions, are available. Furthermore he shall also ensure that the performance of the aeroplane intended to be used is adequate to comply with the different requirements (landing and take-off distances with two engine operative and engine failure during take-off). Besides that he shall also make sure that the appropriate maps and charts are available.

The Nominated Person Flight Operation shall ensure that runway data and aerodrome facilities to be used during all flights done are selected through the latest edition of the available Jeppesen documentation.



## 5 APPROACH, MISSED APPROACH AND DEPARTURE PROCEDURES INCLUDING NOISE ABATEMENT PROCEDURES

#### 5.1 GENERAL

Approach, missed approach and departure procedures (including noise abatement procedures) are given in the approach charts and in the Air Traffic Control section of the Jeppesen Airway Manual for the area of operation as follows:

- Standard Terminal Arrival Routes (STAR) charts (10-2 series)
- Standard Instrument Departure (SID) charts (10-3 series)
- Noise Abatement Procedures charts (10-4 series)
- Instrument Approach Charts (11-, 12-, 13- and 16-series)
- AIR TRAFFIC CONTROL section of the Jeppesen Route

The Nominated Person Flight Operation shall ensure that all flights are executed according the published procedures for the aerodrome in this state. Those procedures are to be found in the Jeppesen documentation available on board.

Approach, missed approach and departure procedures including noise abatement procedures are then to be followed by the aeroplane commander except if he receives an ATC clearance permitting him to deviate from the published departure or arrival route. In that case the Commander must ensure that obstacle clearance criteria are observed.

Furthermore, the Nominated Person Flight Operation shall also ensure that the performance of the aeroplane intended to be used is adequate to comply with the different requirements (landing and take-off distances with two engine operative and engine failure during take-off). Besides that he shall also make sure that the appropriate maps and charts are available. It is the Commanders responsibility to ensure that they are on board and also used during the flight.

Commanders shall ensure that the latest edition of the Jeppesen documentation in hard copies or electronically (as approved for the aeroplane) is ready at hand during the flights.



### 6 COMMUNICATION FAILURE PROCEDURES

#### 6.1 GENERAL

Communications failure procedures are specified in the Jeppesen Route Manual:

- EMERGENCY section of the Jeppesen Airway Manual.
- AIR TRAFFIC CONTROL section of the Jeppesen Route Manual (Procedures related to Emergencies, Communication Failure and Contingencies)

In case of communication failure Commanders shall ensure that the procedures described in the Jeppesen Airway Manual - Section Emergency are followed. These ICAO rules are to be adhered with. ICAO differences or special state procedures must always be checked and complied with.

Where State requirement is specifically stated for Communication Failure procedures, it is detailed in the EMERGENCY section of the Jeppesen Route Manual (Emergency Data – State Pages). These requirements have priority over standard procedures.

Please also refer to OM-A Chapter 12.3 (Communication Procedures including COM Failure Procedures)



# 7 SEARCH AND RESCUE FACILITIES IN THE AREA OVER WHICH THE AEROPLANE IS TO BE FLOWN

#### 7.1 GENERAL

Search and rescue procedures and facilities are specified in the Jeppesen Route Manual under following chapters:

- EMERGENCY section of the Jeppesen Route Manual (Search and Rescue Procedures and Facilities).
- ATC (Air Traffic Control) section of the Jeppesen Route Manual (Alerting Service).



### 8 AERONAUTICAL CHARTS TO BE CARRIED AND THEIR VALIDITY

#### 8.1 GENERAL

Aeronautical maps and charts covering the entire approved operations are contained in the Jeppesen Route Manual.

For a description of the Enroute Charts, including the method to check their validity, refer to the INTRODUCTION section (Chart Legend) of the Jeppesen Route Manual.

All Maps and Charts are amended as soon as amendment documents are made available to Mali Air. The Nominated Person Flight Operation shall ensure that the amendments are done expeditiously. The Commander will always check before executing a flight or a series of flights that all charts are present and up to date.

Radio Facility Charts for the AOC area of operation are carried in the Jeppesen Airway Manual.



#### 9 AVAILABILITY OF AERONAUTICAL INFORMATION AND MET SERVICES

#### 9.1 GENERAL

Details of the aeronautical information and meteorological services in the AOC area of operation are contained in the Meteorology and Air Traffic Control Sections of the Jeppesen Airway Manual carried on the aeroplane flight deck.

#### 9.2 AERONAUTICAL INFORMATION

Aeronautical Information gives an overview of reports and information available to crews with respect to the area of operation.

#### 9.2.1 NOTAM's

Issued by relevant Authorities and provided by the briefing software. It should include relevant information about departure, destination, destination alternate(s), en-route alternates and possible take-off alternate aerodromes. All other relevant/important information relating to the predicted area of operation shall be passed to the flight crews as well.

In out stations these data should be provided/updated by handling agents.

#### 9.2.2 WEATHER REPORTS

Issued by relevant Meteorological Services and provided by Flight Operations by the briefing software or other network. Should include relevant weather information about departure, destination, destination alternate(s), en-route alternates and possible take-off alternate aerodromes (METAR, TAF...). All other relevant/important weather information relating to the predicted route shall be passed to the flight crews as well (SIGMET, AIRMET, wind charts, Significant WX Chart...). In out stations this information should be provided by handling agents.

#### 9.2.3 NAVIGATION REPORTS

Issued by Flight Operations Department (or by the crew) and updated regularly to advise crew of known anomalies in the FMS databases or OFP, as applicable. If diplomatic clearance is required, it is entered into the Journey Log.

#### 9.2.4 OVERFLYING CLEARENCES

Issued by Commercial Department and updated as required. Overflying Clearance reference numbers can be quoted by crew if questioned by ATC.

#### 9.2.5 FMS NAVIGATION DATA BASE REPORTS

Any anomaly specifically on lateral or vertical NAV guidance detected in the FMS

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Navigation Database can be reported through the Pilots Report by crew in order to enable a quick resolution of FMS Navigation Database problems by Flight Operations Department.

Crews are encouraged to provide as much relevant information as possible

## 9.2.6 MINIMUM OFF-ROUTE ALTITUDE (MORA)

Refer to Operations Manual Part A Chapter 8 for guidance.



## 10 EN-ROUTE COM/NAV PROCEDURES

#### **10.1 REFERENCES**

Details of the en-route COM/NAV procedures (including holding procedures) in the AOC area of operation are contained in the Air Traffic Control section of the Jeppesen Airway Manual carried on the aeroplane flight deck, taking into account all the obtained NOTAM's and the instructions given by ATC.

If in the Commander's mind an instruction given by ATC is in contradiction with the published procedures and NOTAM's, he is responsible to request confirmation and to verify if these instructions are safe and in accordance with the Operations Manuals.

Route qualification shall be obtained by studying the Jeppesen Airway Manual and by self-briefing the route qualification briefing as set out in this chapter.

No route qualification briefing is published for the Europe area. It is part of the standard line-training and afterwards the daily area of operation. The fact that no route qualification briefing is required for the European area doesn't mean that no aerodrome qualification briefing is required for an aerodrome in that area, which can be done using Jeppesen briefing material.

#### 10.2 ROUTE QUALIFICATION BRIEFINGS

Refer to the appropriate Appendix 1 to this manual.



# 11 AERODROME CATEGORISATION FOR FLIGHT CREW COMPETENCE QUALIFICATION

#### 11.1 GENERAL

Aerodromes in the company area of operation are categorized according to their characteristics of terrain difficulties, approach aids and approach patterns, weather conditions or performance limitations, etc. The Commander shall ensure that he is briefed or self-briefed with the prerequisite of the aerodrome to be used, which shall be recorded in his personal training file.

The Nominated Person Flight Operation is responsible for assessing the complexity of routes and aerodromes to be used. For the less complex routes and aerodromes, familiarisation by self-briefing with route and aerodrome documentation, or by means of programmed instruction is an accepted procedure.

For more complex routes and airports, in addition to familiarisation by self-briefing, in-flight familiarisation as Commander or Co-pilot under supervision, observer, or familiarisation in a flight simulation training device using a database appropriate to the route concerned must be completed under the supervision of the Training Manager, a Type Rating Instructor or an experienced Commander especially appointed for that purpose.

#### 11.2 CATEGORIZATION

#### 11.2.1 Category A

Category A aerodromes are aerodromes considered not to pose any special problems for approach, landing or take-off. Category A aerodromes will have all of the following:

- an approved instrument approach procedure;
- at least one runway with no performance limited procedure for take-off and / or landing;
- published circling minima not higher than 1000 ft above aerodrome level; and
- night operations capability.

#### 11.2.2 Category B

Category B aerodromes are aerodromes considered to pose certain problems for the approach and/or landing and/or take-off. Category B aerodromes are aerodromes that do not meet the category A requirements or which requires extra considerations such as:

- non-standard approach aids and / or approach patterns;
- unusual local weather conditions;
- unusual characteristics or performance limitations; or
- any other relevant consideration including obstructions, physical layout, lighting etc.

Further guidance on qualification requirements, training and validity of aerodrome competence qualifications can be found in OM Part A and D.

#### 11.2.3 Category C

Category C aerodromes are aerodromes that pose special problems in the approach and/or landing and/or take off that require additional consideration to Category B aerodrome.

Further guidance on qualification requirements, training and validity of aerodrome competence qualifications can be found in OM Part A and D.

#### 11.3 LIST OF AERODROMES



The list of aerodromes can to be found in Appendix 1 to this manual and contains details of all airports served by Mali Air as well as all details of airports to which operations are prohibited. The categorization code is indicated within the list along with specific restrictions associated with airport use. The following abbreviations can be used for this purpose:

- A: Category A aerodrome
- B: Category B aerodrome
- C: Category C aerodrome
- SIM: Training in simulator required;
- B1: Navigator required; and
- B2: Online-briefing or/and Test required.



## 12 SPECIAL AERODROME LIMITATIONS

#### 12.1 GENERAL

If necessary due to special operating procedures and/or operating limitations on an aerodrome, a special aerodrome briefing is created by Mali Air for the flight crew members. The aerodrome briefings are combined in Appendix 1 to this manual. Additional information can also be found in the Jeppesen Airport Qualification and Familiarisation Manual. Additional Information can also be provided by the Ground Ops department.