



مكاملة
Mukamalah

OPERATIONS MANUAL PART B – (OMB)

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MAC-FLT-121U-OMB-M-1/0



OPERATIONS MANUAL PART B – (OMB)

0 DOCUMENT ADMINISTRATION AND CONTROL
0.1 GACA APPROVAL

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0. DOCUMENT ADMINISTRATION AND CONTROL

0.1 GACA APPROVAL

GACA eBook Vol.4

1. This official Mukamalah Aviation manual complies with stringent General Authority of Civil Aviation Regulations (GACAR). The General Authority solely approves its use within Mukamalah.
2. Should any discrepancies arise between this manual and GACAR requirements, prioritize the latter. In such cases, we will promptly update this manual, adhering to GACA eBook Vol.4, Ch.12, Sec. 4.
3. This manual's content is accurate as of Revision 0 of the List of Effective Pages (LEP), dated March 20, 2024.
4. This manual becomes “uncontrolled” when printed.



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0 DOCUMENT ADMINISTRATION AND CONTROL

0.2 MANAGEMENT APPROVAL

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0.2 MANAGEMENT APPROVAL

1. This manual is a part of the Company manual system and shall comply with provisions established in the Corporate Policy Manual, as applicable, for content, policy, writing standards and formatting.
2. Manual Owner: Director of Safety and Quality
3. Responsibility: Manual content and implementation.

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Issue / Revision:	01 / 00

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0.4 REVISION HIGHLIGHTS

This table summarizes the major changes that are made to each revision and not all changes. Throughout each review cycle, subsequent entries may change, prior entries or proposed changes may be held, disregarded and/or made obsolete. This is a summary of input received throughout the duration. Changes throughout the manual are indicated by vertical revision bars.

Note: The vertical bar (change bar) in the margin indicates a change, addition, or deletion in the adjacent text for the current revision of that page only.

Issue	Rev	Rev Date	Summary of Change (S)	Received Via
01	00	XX MAR. 2024	N/A – Initial Release	NA



0.5 RECORD OF NORMAL REVISIONS

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0.8 DISTRIBUTION LIST

Doc Holder / Location	Type Of Format	Copy Number
Master Copy		
Director of Flight Operations		
Chief Pilot		

Note:

Electronic Notification to Staff:

Digital versions of all current Company and Technical documentation are published in DMS for easy access to employees.

Printed Copies:

Any printed copies of this document are uncontrolled documents and are to be marked "Uncontrolled When Printed". The only exception to this is for the Controlled, printed copies of this document that have been distributed in detail.



0.9 DOCUMENT STRUCTURE AND HIERARCHY

0.9.1 PREFACE

This manual is issued in accordance with regulations 4, 5, 7, 91, 109, 117, 119 and 121 of the General Authority of Civil Aviation (GACA) of the Kingdom of Saudi Arabia. It also complies with the terms and conditions of the Operator's Certificate and Operations Specifications issued to the Company by the Authority. The term 'the Company' or 'Mukamalah Aviation' in this document refers to Mukamalah Aviation Company Ltd.

This Corporate Policy Manual is intended to ensure on-going effectiveness in achieving desired operational outcomes and ensure continuous improvement of processes and procedures. It also reflects management's commitment to quality, security, and safety as a fundamental guiding principle. The manual emphasizes the organization's commitment to a just culture, where human error is not punished, and communication channels are open to allow information to flow freely across the organization.

0.9.2 Publications Hierarchy

All Mukamalah Aviation manuals fall in the documentation hierarchy below:

1. Level 1: Corporate and governance level policy documents.
2. Level 2: Division/department level policy, process, and procedure documents.
3. Level 3: Instructions, checklists, and forms.

Manuals at the top of the hierarchy set parameters that lower-level manuals must comply with.

The following flowchart sets out the types of information, their level in the documentation hierarchy.

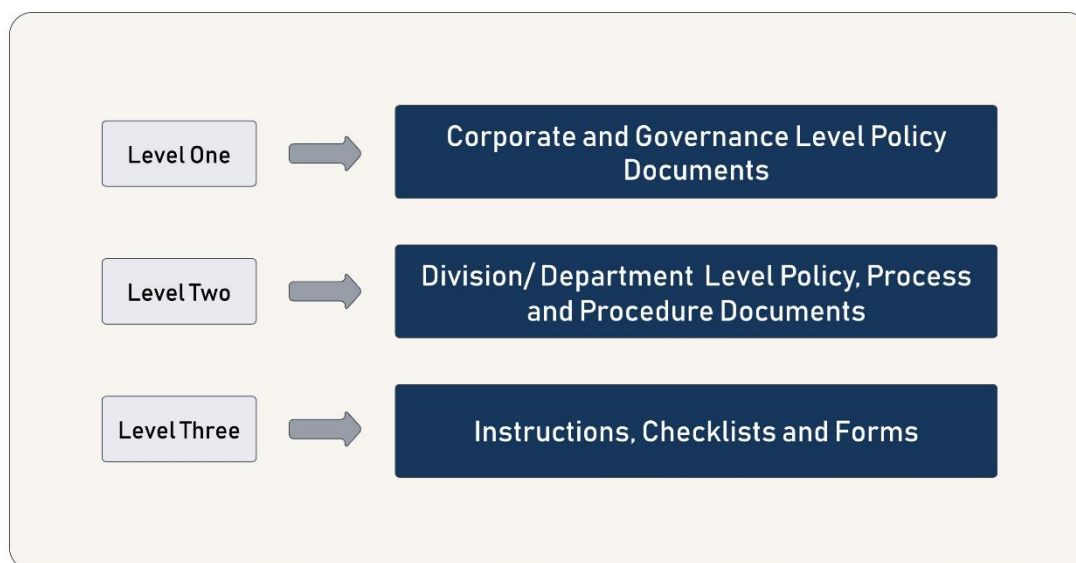


Figure 1 – MAC Publication Hierarchy



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0.9.3 Manual Owner

Refer to CPM section 2.6.4.

0.9.4 Document Format and Style Guide

Refer to CPM section 2.6.2.



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0.10 REVISION CONTROL

0.10.1 System of Amendment

Refer to CPM section 2.6.2.4.



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0.11 ABBREVIATIONS, ACRONYMS & DEFINITIONS

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0.11 ABBREVIATIONS, ACRONYMS & DEFINITIONS

0.11.1 Abbreviations and Acronyms

A	
ATC	Air Traffic Control
B	
C	
CVR	Cockpit Voice Recorder
D	
E	
F	
FDR	Flight Data Recorder
G	
GPWS	Ground Proximity Warning Systems
O	
OM	Operations Manual
P	
PF	Pilot Flying
PM	Pilot Monitoring



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Q

QAR	Quick Access Recorder

S

SOPs	Standard Operating Procedures

T

TAWS	Terrain Awareness and Warning Systems
TCAS	Traffic Collision Avoidance System

V

VFR	Visual Flight Rules



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0.12 USE OF PROCEDURAL WORDS

Refer to CPM section 2.3



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OPERATIONS MANUAL PART B – (OMB)

1 GENERAL INFORMATION AND UNITS OF MEASUREMENT

1.1 GENERAL INFORMATION

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1. GENERAL INFORMATION AND UNITS OF MEASUREMENT

1.1 GENERAL INFORMATION

The Operations Manual Part B, which focuses on Aircraft Specifications, is relevant for the aircraft types listed below.

Aircraft Type	Serial Number
B737-8KV	63406
B737-800	61781 61782 61784 61785 61786 61797

Details regarding the dimensions of these aircraft can be found in Section 1.10 of the Flight Crew Operating Manual (FCOM). Information on any modifications made to these aircraft is included in the Aircraft Flight Manual (AFM).

Operations Manual Part B serves as an adjunct to the documentation supplied by the Original Equipment Manufacturer (OEM). The OEM provides the following documents:

1. Aircraft Flight Manual (AFM)
2. Flight Crew Operations Manual (FCOM)
3. Flight Crew Training Manual (FCTM)
4. Quick Reference Handbook (QRH)
5. Weight and Balance Manual (WBM)
6. Minimum Equipment List (MEL) as customized and approved by GACA.

Flight crew should familiarize themselves with the content of these documents to ensure safe and efficient operation of the aircraft. The Operations Manual Part B provides supplementary information and company-specific procedures that complement the OEM documentation.

In the event of any discrepancies between the Operations Manual Part B and the OEM documentation, the latter shall take precedence. Flight crew should report any identified discrepancies to the company's flight operations department for resolution.

It is the responsibility of each flight crew member to maintain their knowledge of the aircraft systems, limitations, and operating procedures, as well as to stay current with any revisions to the OEM documentation and the Operations Manual Part B.



OPERATIONS MANUAL PART B – (OMB)

1 GENERAL INFORMATION AND UNITS OF MEASUREMENT

1.2 UNITS OF MEASUREMENTS

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1.2 UNITS OF MEASUREMENTS

Unless otherwise specified, the International System of Units (SI units) shall be used throughout this Operations Manual Part B and in all flight operations. The following are the base SI units:

1. Length: meter (m)
2. Mass: kilogram (kg)
3. Time: second (s)
4. Electric current: ampere (A)

In addition to the base units, the following derived units are commonly used in aviation:

1. Distance: nautical mile (NM) - 1 NM = 1,852 m
2. Speed: knot (kt) - 1 kt = 1 NM/hour = 1.852 km/h
3. Altitude: foot (ft) - 1 ft = 0.3048 m
4. Pressure: hectopascal (hPa) - 1 hPa = 100 Pa = 1 millibar (mb)
5. Temperature: degree Celsius (°C) - 0 °C = 273.15 K
6. Volume: liter (L) or US gallon (gal)
 - a. 1 L = 0.001 m³
 - b. 1 US gal = 3.785 L
 - c. Conversion: 1 L = 0.264 US gal; 1 US gal = 3.785 L
7. Force: newton (N) - 1 N = 1 kg·m/s²
8. Thrust: pound-force (lbf) - 1 lbf = 4.448 N

Flight crew shall use these units consistently in all communications, documentation, and calculations related to flight operations. When necessary, appropriate conversions shall be made to ensure clarity and avoid confusion.

In situations where non-SI units are used due to regulatory requirements, industry standards, or aircraft manufacturer documentation, flight crew shall be familiar with the relevant conversion factors and apply them correctly.

Any deviations from the use of SI units must be clearly stated and explained in the relevant sections of this manual or other operational documents.

It is important to note that thrust in aviation is commonly expressed in pound-force (lbf), which is a non-SI unit. Flight crew shall be familiar with this unit and its relation to the SI unit of force, the newton (N). When performing calculations or conversions involving thrust, use the conversion factor: 1 lbf = 4.448 N.



2. LIMITATIONS

2.1 FLEET CERTIFIED AND OPERATIONAL LIMITATIONS

2.1.1 Certification Status

Mukamalah Aviation B737 fleet is certified in the transport category. B737 is approved for the following kinds of flight and operation, both day and night

Aviation Regulations.

1. Visual (VFR)
2. Instrument (IFR)
3. Icing Conditions
4. Extended Over-Water Operations

2.1.2 Types of Operations

As per Mukamalah Aviation Operations Specifications and the procedures established in the Operations Manual part A.

2.1.3 Fleet Seating Configuration

Refer to Operations Manual Part E for seating configuration and maximum number of passenger seats.

2.1.4 Mass and Centre of Gravity

Refer to Aircraft Flight Manual section 1 for certified Center of Gravity (CG) envelope and weight limitations.

Operations should not utilize the Center of Gravity (CG) envelope defined in the Aircraft Flight Manual (AFM) as it represents the certified CG limits without considering the operational impact.

2.1.5 Speed Limitations

Refer to AFM section 1.

2.1.6 Wind Limits

Refer to FCOM chapter 3.

2.1.7 Performance Limitations



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2	LIMITATIONS
2.2	Cargo Compartment Fire Suppression

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2.2 CARGO COMPARTMENT FIRE SUPPRESSION

Refer to AFM section 2 Cargo Fire and FCOM section 8.20.5 and 8.20.6 Cargo Compartment Fire Protection and Cargo Compartment Fire Suppression.



2	LIMITATIONS
2.3	Fuel Types

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2.3 FUEL TYPES

Refer to AFM Engine Fuel System.

Maximum tank fuel temperature is 49°C. Minimum tank fuel temperature prior to takeoff and inflight is –43°C, or 3°C above the fuel freezing point temperature, whichever is higher.



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2	LIMITATIONS
2.3	Fuel Types

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3 NORMAL PROCEDURES

3.1 INTRODUCTION

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3. NORMAL PROCEDURES

3.1 INTRODUCTION

This chapter outlines the standard operating procedures (SOPs) for normal flight operations conducted by Mukamalah Aviation. These procedures are designed to ensure safe, efficient, and consistent operations across the airline's fleet. While the manufacturer's operating manuals (e.g., Boeing B737 FCOM and QRH) serve as the primary reference for normal procedures, this chapter provides additional guidance and company-specific policies to supplement the OEM documentation. Flight crew members are required to adhere to these procedures and maintain a thorough understanding of their roles and responsibilities.



3.2 FLIGHT CREW RESPONSIBILITIES

3.2.1 Captain (Pilot-in-Command)

The Captain is responsible for the safe operation of the aircraft, compliance with all applicable regulations, and the conduct of the flight crew. The Captain's duties include, but are not limited to:

1. Making operational decisions and ensuring the safety of the aircraft, crew, and passengers.
2. Conducting pre-flight briefings and ensuring all crew members are aware of their duties.
3. Coordinating with cabin crew, ground staff, and other relevant personnel.
4. Completing necessary flight documentation and reports.

3.2.2 First Officer (Second-in-Command)

The First Officer is responsible for assisting the Captain in the operation of the aircraft and performing duties as assigned. The First Officer's duties include, but are not limited to:

1. Conducting pre-flight inspections and checks.
2. Monitoring aircraft systems and performance during flight.
3. Maintaining communication with ATC and other relevant agencies.
4. Assisting the Captain in decision-making and problem-solving.

3.2.3 Relief Crew

On long-haul flights, relief crew members may be assigned to ensure adequate rest periods for the primary flight crew. Relief crew responsibilities include:

1. Conducting pre-flight briefings with the primary crew to discuss flight details and any specific requirements.
2. Assuming flight deck duties during designated rest periods.
3. Maintaining situational awareness and being prepared to assist the primary crew as needed.

3.2.4 All Flight Crew Members

All flight crew members are responsible for:

1. Maintaining proficiency in their assigned duties and staying current with all required training and qualifications.
2. Adhering to company policies, SOPs, and applicable regulations.
3. Reporting any safety concerns, incidents, or deviations from standard procedures.
4. Maintaining open communication and working effectively as a team.



3.3 FLIGHT DECK DISCIPLINE

Maintaining a disciplined and professional environment on the flight deck is crucial for safe and efficient operations. Flight crew members must adhere to the following guidelines:

1. Sterile Cockpit:

The sterile cockpit rule applies during critical phases of flight, typically below 10,000 feet. During this time, crew members must refrain from non-essential conversations and activities, focusing solely on flight-related duties. Refer to OM-A 8.3.19. 1.

2. Standard Callouts:

Flight crew members must use standard callouts as prescribed in the manufacturer's operating manuals and company SOPs. Standard callouts help to ensure effective communication and coordination between crew members. Refer to 3.4.

3. Checklist Discipline:

Checklists must be completed in a timely and accurate manner, with one crew member reading the checklist items and the other responding accordingly. Interruptions during checklist execution should be minimized, and the checklist should be resumed from the last completed item.

4. Flight Deck Access:

Access to the flight deck must be strictly controlled in accordance with company policy and regulatory requirements. Only authorized personnel are permitted to enter the flight deck during flight. Refer to OM-A 8.3.12.

5. Professional Conduct:

Flight crew members must maintain a professional demeanor at all times, both on and off the flight deck. This includes adherence to company uniform standards, punctuality, and respect for colleagues and passengers.



3.4 STANDARD CALLOUTS

3.4.1 Communication Guidelines

Effective communication is critical for the safe and efficient operation of all Mukamalah Aviation flights. To ensure clear, concise, and unambiguous communication between flight crew members and with air traffic control (ATC), the following guidelines shall be adhered to:

1. Use standard callouts and phraseology as outlined in this manual.
2. Speak clearly and at a moderate pace to ensure comprehension by all parties involved.
3. Listen attentively to all communications and acknowledge receipt of information as required.
4. Avoid non-essential conversations during critical phases of flight.
5. In case of any doubt or confusion regarding a communication, seek clarification immediately.

3.4.2 Callout Objectives

Standard callouts serve several essential purposes in flight operations:

1. Enhance situational awareness: Callouts keep all flight crew members informed about the aircraft's status, position, and any relevant changes or events.
2. Verify critical actions: Callouts confirm that important tasks or procedures have been completed, ensuring that no steps are missed.
3. Highlight deviations: Callouts draw attention to any deviations from normal procedures or expected aircraft behavior, allowing for timely corrective action.
4. Prompt necessary actions: Callouts serve as reminders for flight crew members to perform required actions or responses at specific points during the flight.
5. Facilitate crew resource management (CRM): By promoting clear communication and a shared understanding of the situation, callouts contribute to effective CRM and teamwork among flight crew members.

3.4.3 Standard Callout Terminology

Mukamalah Aviation has adopted a standardized set of callouts and responses for various phases of flight and specific situations. These callouts are based on industry best practices and regulatory requirements. Flight crew members must familiarize themselves with these callouts and use them consistently during all flight operations.

The standard callout terminology includes, but is not limited to:

1. Pre-flight and taxi callouts (e.g., "Brakes checked," "Takeoff clearance received")
2. Takeoff and climb callouts (e.g., "V1," "Rotate," "Positive rate," "Gear up")
3. Cruise callouts (e.g., "Reaching cruise altitude," "Fuel check")
4. Approach and landing callouts (e.g., "1000 feet," "Minimums," "Go-around," "Spoilers deployed")
5. Abnormal and emergency situation callouts (e.g., "Fire," "Engine failure," "Terrain," "Windshear")
6. Altitude awareness callouts (e.g., "1000 to go," "Approaching level-off")
7. Configuration change callouts (e.g., "Flaps 1," "Gear down," "Landing checklist complete")



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3 NORMAL PROCEDURES

3.4 STANDARD CALLOUTS

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For a complete list of standard callouts and their associated responses, refer to the aircraft-specific procedures in OM-C and the Quick Reference Handbook (QRH).

Flight crew members shall be aware that, in addition to the standard callouts, effective communication involves the sharing of relevant information, concerns, and observations. Crew members are encouraged to voice any safety-related issues or questions, in line with the company's CRM principles and practice



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3 NORMAL PROCEDURES

3.5 NORMAL CHECKLISTS

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3.5 NORMAL CHECKLISTS

3.5.1 Checklist Objectives

Normal checklists are used to ensure the aircraft is properly configured for each phase of flight. They serve as a memory aid and increase flight safety by preventing critical items from being missed. Checklists should be performed in a methodical manner at predetermined points during normal operations.

3.5.2 Checklist Initiation

Normal checklists are initiated by the Pilot Flying (PF) by calling for the specific checklist, such as "BEFORE START checklist". The Pilot Monitoring (PM) should respond by accessing the checklist and reading the first item. On the ground, the commander normally initiates checklists. In flight, either pilot may initiate a checklist depending on PF/PM duties.

3.5.3 Checklist Completion

Checklists should be completed without rushing and in a methodical flow to minimize distractions. The PM reads the checklist item, waits for the PF to complete the action (if required), then the PF states the current status or value. The PM then responds with the correct status before moving to the next item. Upon completion, the PM states "CHECKLIST COMPLETE".

3.5.4 Checklist Responses

When responding to checklist items, pilots should use concise standard callouts matching those printed on the checklist. Avoid using non-standard phrases like "set", "done", "okay". If an item requires a status or numerical value, the actual status/value should be stated out loud. The PF should visually verify settings in addition to verbally responding.



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3 NORMAL PROCEDURES

3.6 CREW BRIEFINGS

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3.6 CREW BRIEFINGS

3.6.1 Departure Briefing

The PF conducts a departure briefing prior to takeoff covering:

1. Significant terrain, weather, NOTAMs
2. Departure procedure name, initial heading/altitude, engine out procedures
3. Key speeds - V1, VR, V2
4. Any non-standard procedures
5. Emergency return plan
6. Aircraft defects / MEL items
7. Loading of Dangerous Goods/Special Loads

The briefing concludes with the query "Any questions?". The PM should ask questions as needed for clarification before stating agreement.

3.6.2 Approach Briefing

The PF briefs the planned approach prior to the top of descent, covering:

1. Destination weather, runway condition, NOTAMs
2. Approach procedure name, transitions, key altitudes
3. Missed approach procedure
4. Landing configuration, Vref speed
5. Taxi-in plan, parking stand
6. Anticipated threats or special considerations

After the briefing, the PF asks "Any questions?" and the PM requests clarification if needed before stating their understanding and agreement with the plan.



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3	NORMAL PROCEDURES
3.7	ALTIMETER SETTING PROCEDURES

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3.7 ALTIMETER SETTING PROCEDURES

Mukamalah Aviation requires flight crews to adhere to the following altimeter setting procedures to ensure safe and accurate altitude information:

1. Before takeoff, the altimeters shall be set to the QNH of the departure aerodrome as provided by ATC or the Automatic Terminal Information Service (ATIS).
2. During climb, the altimeters shall be set to the standard pressure setting of 1013.25 hPa (29.92 inHg) when passing through the transition altitude.
3. During cruise, the altimeters shall remain set to the standard pressure setting of 1013.25 hPa (29.92 inHg).
4. During descent, the altimeters shall be set to the QNH of the destination aerodrome as provided by ATC or ATIS when passing through the transition level.
5. The flight crew shall cross-check the altimeter settings to ensure accuracy and consistency.
6. In the event of a discrepancy between the altimeters, the flight crew shall refer to the abnormal procedures in the Quick Reference Handbook (QRH).

Refer to OM-A section 8.3.3.



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3	NORMAL PROCEDURES
3.8	STERILE FLIGHT DECK POLICY

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3.8 STERILE FLIGHT DECK POLICY

To minimize distractions and maintain focus during critical phases of flight, Mukamalah Aviation has established a Sterile Flight Deck Policy. The policy shall be in effect during the following phases:

1. Ground operations involving taxi, takeoff, and landing
2. All flight operations below 10,000 feet Above Ground Level (AGL), except cruise flight
3. Any other phase of flight as determined by the Pilot-in-Command (PIC)

During these phases, the following restrictions apply:

1. Flight crew members shall refrain from non-essential conversations and activities.
2. Only communication pertinent to the safe operation of the aircraft or the completion of essential tasks shall be conducted.
3. Cabin crew shall not contact the flight crew except for matters of safety or security.
4. Flight crew members shall not make PA announcements, except for safety-related information.
5. Flight crew members shall not eat meals or consume beverages, except as necessary for physiological needs.

Refer to OM-A section 8.3.19.1.



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3	NORMAL PROCEDURES
3.9	FLIGHT CREW SEAT POSITIONS

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3.9 FLIGHT CREW SEAT POSITIONS

Mukamalah Aviation has established the following guidelines for flight crew seat positions:

1. The Pilot-in-Command (PIC) shall occupy the left seat, and the Second-in-Command (SIC) shall occupy the right seat during all phases of flight.
2. In the event of incapacitation of either pilot, the remaining pilot shall assume control of the aircraft from their assigned seat.
3. During cruise flight, flight crew members may leave their assigned seats for physiological needs or to perform essential tasks, provided that at least one pilot remains at the controls.
4. Flight crew members shall use the seat belts and shoulder harnesses provided whenever seated at their assigned stations.

For observer and jump seats, refer to OM-A section 8.3.13.



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3 NORMAL PROCEDURES

3.10 TAXI PROCEDURES

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3.10 TAXI PROCEDURES

Refer to B737 FCOM Amplified Procedures chapter.

Mukamalah Aviation flight crews shall adhere to the following taxi procedures to ensure safe and efficient ground operations:

3.10.1 Pre-Taxi

1. Obtain ATC clearance and ensure the taxi route is understood by both pilots
2. Review the airport diagram, noting any hot spots or complex intersections
3. Conduct a thorough brake check prior to leaving the parking stand
4. Turn on taxi light and logo light (if equipped) prior to taxi

3.10.2 Taxi

1. Maintain a safe taxi speed, not exceeding 30 knots
2. Lead pilot should keep eyes outside for situational awareness; PM should monitor instruments and assist with navigation
3. Comply with all hold short instructions and clearance limits
4. Maintain a safe distance from other aircraft and vehicles
5. Use caution when taxiing near obstacles, congested areas, or on contaminated surfaces

3.10.3 Runway Crossing

1. Obtain explicit ATC clearance before crossing any runway
2. Check both directions for traffic before crossing, even with a clearance
3. Expedite crossing and report clear of the runway

3.10.4 Holding

1. When instructed to hold short, stop the aircraft at the appropriate holding point marking
2. Set parking brake and monitor the tower frequency
3. Prior to continuing taxi, release parking brake and acknowledge the ATC instruction

3.10.5 Approach to Runway

1. Complete Before Takeoff checklist and takeoff briefing prior to the holding point
2. Visually clear final approach path and runway prior to proceeding onto the runway
3. Announce "Runway XX, lineup and wait" when cleared onto the runway
4. Turn on all external lights prior to takeoff

3.10.6 After Landing

1. Exit the runway at first available taxiway unless otherwise instructed by ATC



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3 NORMAL PROCEDURES

3.10 TAXI PROCEDURES

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2. Announce "Clear of Runway XX" when all parts of the aircraft have crossed the hold short line
3. Taxi to the assigned parking stand or gate, following taxi lines and marshallers
4. Turn off landing lights and taxi light once clear of active runways

Throughout all taxi operations, Mukamalah Aviation crews shall maintain a sterile cockpit, limiting conversation to essentials related to the safe operation of the aircraft.



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3	NORMAL PROCEDURES
3.11	BOARDING OF PERSONS WITH REDUCED MOBILITY (PRM)

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3.11 BOARDING OF PERSONS WITH REDUCED MOBILITY (PRM)

Boarding of Persons with Reduced Mobility (PRM) requires special procedures to ensure their safety and comfort. Coordinate with the PRM Handling Agent and Ramp Supervisor for boarding of all PRMs.

1. Board non-ambulatory PRMs via lift truck or passenger boarding stairs with an aisle wheelchair.
2. Seat PRMs in designated seats with movable armrests near the boarding door when possible. Provide individual pre-flight safety briefings to PRMs.
3. Stow all assistive devices in approved storage locations. Devices must not block aisles or emergency exits.
4. Review procedures for assisting PRMs during an emergency evacuation prior to departure.

The Pilot in Command (PIC) possesses the final authority to implement these procedures.



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3	NORMAL PROCEDURES
3.12	CARRIAGE OF SUPERNUMERARIES

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3.12 CARRIAGE OF SUPERNUMERARIES

As Mukamalah Aviation will not be utilizing supernumeraries, this section is intentionally left blank. Refer to OM-A section 4.2.2.



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3 NORMAL PROCEDURES
3.13 PASSENGER ANNOUNCEMENTS

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3.13 PASSENGER ANNOUNCEMENTS

The cabin crew is responsible for delivering passenger announcements under the commander's authority, covering key information such as:

1. Welcome aboard, introduction of lead crew member
2. Smoking prohibition, seat belt use, stowage of luggage
3. Location of emergency exits, life vests
4. Use of oxygen masks if needed
5. Electronic device policy
6. Turbulence warnings as needed
7. Preparation for landing, taxi-in
8. Miqat announcement for Hajj and Umrah flights

Additional announcements may be given by the flight crew as needed regarding delays, weather, flight path, etc. All announcements should be clear, concise and aimed at keeping passengers informed while minimizing anxiety. Crew should use standardized scripts and maintain a calm, professional tone. Refer to OM-E section 8.10.9.



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3 NORMAL PROCEDURES

3.14 USE OF SEAT BELT SIGN

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3.14 USE OF SEAT BELT SIGN

In accordance with Mukamalah Aviation procedures, the commander is responsible for ensuring the seat belt sign is illuminated during taxi, takeoff, landing, turbulence and whenever deemed necessary for passenger safety. When the seat belt sign is illuminated, all passengers and cabin crew members must be seated with their seat belts securely fastened.

Mukamalah Aviation flight crews shall adhere to the following guidelines regarding seat belt sign usage:

1. The seat belt sign shall be turned on prior to engine start and remain illuminated for the duration of taxi-out.
2. In preparation for takeoff, the sign shall be illuminated prior to entering the active runway.
3. Upon leaving cruise altitude, the sign shall be illuminated in preparation for descent and landing.
4. During turbulence or when expecting turbulence, the seat belt sign shall be illuminated.
5. Anytime the commander deems it necessary for passengers to remain seated for safety reasons, the seat belt sign shall be illuminated.

Whenever the seat belt sign is illuminated, the "FASTEN SEAT BELT" announcement shall be made in Arabic and English to instruct passengers to secure their seat belts.

Flight crews shall coordinate with the lead cabin crew member prior to turning off the seat belt sign after takeoff and landing to ensure the cabin is secure. During cruise flight, flight crews shall provide advance notice to the cabin crew whenever planning to illuminate the seat belt sign, allowing adequate time to secure the cabin and any in-flight services.

In the event of unexpected moderate to severe turbulence, the seat belt sign shall be turned on immediately and the flight crew shall make a "FASTEN SEAT BELT" announcement as soon as practicable. The cabin crew shall be directed to take their seats without delay. Refer to OM-A section 8.3.11.



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4 ABNORMAL AND EMERGENCY PROCEDURES

4.1 INTRODUCTION

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4. ABNORMAL AND EMERGENCY PROCEDURES

4.1 INTRODUCTION

Mukamalah Aviation is committed to the safety and well-being of our passengers and crew. In the event of an abnormal or emergency situation, flight crews shall follow the procedures outlined in the aircraft manufacturer's documentation (AFM, QRH, FCOM) and this Operations Manual.

The primary objective in any abnormal or emergency situation is to maintain the safety of the aircraft, passengers, and crew. Flight crews are expected to use good judgment and Crew Resource Management (CRM) principles to assess the situation, take appropriate actions, and communicate effectively with all relevant parties.

This chapter covers abnormal and emergency procedures that are not covered by OEM manuals.



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4	ABNORMAL AND EMERGENCY PROCEDURES
4.2	EMERGENCY AND ABNORMAL PROCEDURES NOT COVERED BY OEM DOCUMENTATION

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4.2 EMERGENCY AND ABNORMAL PROCEDURES NOT COVERED BY OEM DOCUMENTATION

While the aircraft manufacturer's documentation covers most abnormal and emergency situations, there may be scenarios that require additional guidance. The following sections provide Mukamalah Aviation's procedures for handling these situations.

4.2.1 Procedures for Handling Bomb Threat Situations

Refer to OM-A section 10.8.1.

4.2.2 Procedures for Handling Hijacking Situations

Refer to OM-A section 10.8.2.

4.2.3 Procedures for Handling Other Acts of Unlawful Interference

In the event of other acts of unlawful interference, such as sabotage, assault on crew or passengers, or any other security threat, Mukamalah Aviation crews shall:

1. Notify ATC discreetly using the appropriate code words or transponder codes.
2. Attempt to land at the nearest suitable airport, considering factors such as runway length, weather, terrain, and available support services.
3. If the situation permits, coordinate with the cabin crew to assess the situation, identify any hazards, and develop a response plan.
4. If possible, isolate the affected area of the aircraft and relocate passengers as necessary.
5. Gather and preserve any evidence, such as photos, witness statements, or suspicious objects, for law enforcement.
6. After landing, coordinate with local authorities and Mukamalah Aviation's operations center for further assistance and guidance.
7. Provide care and support for any affected passengers or crew members, including medical attention if needed.
8. Complete all necessary documentation, including incident reports and statements for law enforcement and the airline.

Throughout the event, the commander has the authority to take any action deemed necessary to ensure the safety of the aircraft, passengers, and crew. This may include diverting to an alternate airport, requesting priority handling from ATC, or taking emergency defensive action.

All Mukamalah Aviation crew members receive initial and recurrent training on handling acts of unlawful interference, including communication protocols, de-escalation techniques, and self-defense. It is essential that crews work together as a team, utilizing CRM principles to manage the situation effectively.

After any incident of unlawful interference, affected crew members shall be provided with appropriate support services, including counseling and legal assistance as needed. Refer to OM-A section 8.3.19.3 for flight crew emergency procedures.



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4 ABNORMAL AND EMERGENCY PROCEDURES

4.3 CREW INCAPACITATION PROCEDURES

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4.3 CREW INCAPACITATION PROCEDURES

Refer to OM-A section 8.3.14.



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4	ABNORMAL AND EMERGENCY PROCEDURES
4.4	FUEL JETTISONING PROCEDURES

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4.4 FUEL JETTISONING PROCEDURES

Not applicable for Mukamalah Aviation B737. This section is intentionally left blank.



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4 ABNORMAL AND EMERGENCY PROCEDURES

4.5 TCAS/ACAS PROCEDURES

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4.5 TCAS/ACAS PROCEDURES

GACAR 121 Appendix G (a)(33), 91.237

Mukamalah Aviation aircraft are equipped with TCAS/ACAS systems to help prevent midair collisions. Flight crews shall be familiar with the operation and interpretation of TCAS/ACAS alerts and shall respond immediately to all Resolution Advisories (RAs) unless doing so would jeopardize the safety of the aircraft.

When an RA is issued, the pilot flying (PF) shall disengage the autopilot and autothrottle and manually fly the aircraft to comply with the RA guidance. The pilot monitoring (PM) shall communicate the RA to ATC as soon as practicable, using standard phraseology such as "TCAS Climb" or "TCAS Descend."

If a TCAS RA maneuver is contrary to ATC instructions, the flight crew shall follow the RA while attempting to minimize deviation from the ATC clearance. When "Clear of Conflict" is annunciated, promptly return to the previous ATC clearance or instruction. After the conflict is resolved, the PM shall notify ATC of the RA and the crew's subsequent actions.

In the event of a TCAS RA in Visual Meteorological Conditions (VMC), visually clear the airspace into which the aircraft will maneuver prior to responding to the RA. Report any TCAS/ACAS event to Mukamalah Aviation's safety department using the designated reporting form. Refer to OM-A section 8.3.6.



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4 ABNORMAL AND EMERGENCY PROCEDURES

4.6 GPWS/TAWS PROCEDURES

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4.6 GPWS/TAWS PROCEDURES

Refer to FCOM Supplementary Procedures chapter section 15 Warning Systems.

Mukamalah Aviation B737 aircraft are equipped with Ground Proximity Warning Systems (GPWS) or Terrain Awareness and Warning Systems (TAWS) to help prevent controlled flight into terrain (CFIT) accidents. Flight crews shall respond immediately and decisively to all GPWS/TAWS alerts and warnings.

When a GPWS/TAWS alert is received, the PF shall disengage the autopilot and autothrottle and manually fly the aircraft to ensure maximum performance during the escape maneuver. Upon receiving a "PULL UP" warning, the PF shall apply maximum thrust and establish a positive climb attitude, aiming to achieve the best angle of climb speed for the aircraft configuration.

The PM shall call out radio altitude, sink rate, and other relevant information to assist the PF in the escape maneuver. Continue the escape maneuver until the warning stops and a safe altitude and trajectory are assured. After the situation is stabilized, notify ATC of the event and request amended clearance if necessary.

In the event of a GPWS/TAWS Caution alert, take corrective action to avoid terrain or obstacles and be prepared for a potential Warning alert. Do not attempt to cancel or inhibit GPWS/TAWS alerts without a valid reason, such as during visual approach in VMC with the runway in sight. Report any GPWS/TAWS event to Mukamalah Aviation's safety department using the designated reporting form.

Mukamalah Aviation crews receive initial and recurrent training on TCAS/ACAS and GPWS/TAWS procedures, including simulator scenarios to practice the appropriate responses. Crews are expected to maintain a high level of situational awareness and to prioritize the safety of the aircraft above all other considerations when responding to these alerts. Refer to OM-D chapter 3 for flight crew training.



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4 ABNORMAL AND EMERGENCY PROCEDURES

4.7 WINDSHEAR PROCEDURES

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4.7 WINDSHEAR PROCEDURES

For system description refer to FCOM section 11.20.10 and QRH section MAN 1.11.

Windshear poses a significant threat to aircraft, particularly during takeoff and landing phases. Mukamalah Aviation flight crews shall be aware of the potential for windshear and be prepared to recognize and respond to windshear encounters.

When operating in areas or conditions conducive to windshear, such as during thunderstorm activity or in the vicinity of strong temperature inversions, flight crews shall maintain a high level of situational awareness and be prepared for sudden changes in airspeed, altitude, or aircraft attitude.

If windshear is encountered during takeoff roll, the takeoff should be rejected if sufficient runway remains. If the takeoff is continued, apply maximum thrust and rotate at the normal rotation speed, then follow the windshear escape maneuver procedure for the specific aircraft type. This typically involves maintaining a target pitch attitude and accepting changes in airspeed and altitude until the windshear is exited.

During approach and landing, if windshear is anticipated or encountered, consider maintaining a higher than normal approach speed and be prepared to initiate a go-around promptly. If a windshear warning is received from the aircraft's predictive windshear system or from ATC, initiate a go-around immediately and follow the windshear escape maneuver procedure.

In the event of a microburst encounter, characterized by a sudden performance-increasing headwind followed by a strong downdraft and rapid airspeed decay, immediately apply maximum thrust and pitch up to maintain a positive climb attitude. Do not attempt to regain lost airspeed or altitude until the aircraft is clear of the microburst.

After a windshear encounter, assess the aircraft's energy state and performance capabilities. If necessary, declare an emergency with ATC and request vectors to the nearest suitable airport for landing. Report the windshear encounter to ATC to warn other aircraft and to Mukamalah Aviation's safety department for analysis and dissemination.

Mukamalah Aviation pilots receive initial and recurrent training on windshear recognition and recovery procedures, including simulator exercises to practice the appropriate responses. Crews are encouraged to review windshear case studies and to maintain proficiency in windshear escape maneuvers. Refer to OM-D sections 3.19 and 3.20.7.

When operating at airports known for frequent windshear occurrences, crews should review the airport's specific windshear procedures and be prepared to respond quickly to any windshear alerts or warnings. Effective communication and coordination between the flight crew, cabin crew, and ATC are essential for the safe management of windshear encounters.



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4 ABNORMAL AND EMERGENCY PROCEDURES

4.8 EMERGENCY DESCENT PROCEDURES

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4.8 EMERGENCY DESCENT PROCEDURES

Refer to QRH section 0.1.

In situations requiring an immediate descent, such as rapid depressurization, uncontrolled fire, or smoke in the cockpit, Mukamalah Aviation flight crews shall initiate an emergency descent without delay.

Upon recognizing the need for an emergency descent, the flight crew shall immediately don oxygen masks and establish crew communication. The PM shall notify ATC of the emergency descent, stating the reason for the descent, the aircraft's intentions, and any assistance required.

The PF shall disengage the autopilot and autothrottle, initiate a turn to the most suitable direction to avoid terrain or traffic, and commence the descent. The target descent rate should be the maximum safe rate for the aircraft type, typically between 3,000 and 8,000 feet per minute.

During the descent, the PF shall maintain a safe airspeed and monitor the aircraft's structural integrity. The PM shall assist with monitoring the aircraft's systems, communicating with ATC, and preparing for an emergency landing, if necessary.

If the emergency descent is due to depressurization, the flight crew shall complete the depressurization checklist and initiate an emergency descent to the lowest safe altitude or 10,000 feet, whichever is higher. If the depressurization occurs above FL250, descend to FL250 and maintain this altitude until all passengers have been provided with supplemental oxygen before continuing the descent.

Once the aircraft reaches a safe altitude and the situation is stabilized, assess the condition of the aircraft, passengers, and crew. If necessary, divert to the nearest suitable airport for an emergency landing. Coordinate with ATC and the airline's operations center to arrange for emergency services and support upon landing.

After the event, complete all necessary documentation and reports, and participate in any investigations or debriefings as required by Mukamalah Aviation and relevant authorities.



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4 ABNORMAL AND EMERGENCY PROCEDURES

4.9 IN-FLIGHT FIRE/SMOKE PROCEDURES

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4.9 IN-FLIGHT FIRE/SMOKE PROCEDURES

Refer to QRH section 8.20.

In-flight fire or smoke events pose a severe threat to aircraft safety and require immediate action by the flight crew. Mukamalah Aviation crews shall be prepared to recognize and respond decisively to any indication of fire or smoke onboard the aircraft.

Upon detection of fire or smoke, the flight crew shall immediately don oxygen masks and establish crew communication. The PF shall engage the autopilot and autothrottle, if not already engaged, to allow both crew members to focus on managing the situation.

The PM shall attempt to identify the source and location of the fire or smoke and apply the appropriate checklist procedure. This may involve shutting down electrical systems, isolating air conditioning packs, or discharging fire extinguishers in the affected area.

If the fire or smoke persists or cannot be effectively controlled, consider declaring an emergency with ATC and initiating an emergency descent and diversion to the nearest suitable airport. Prepare for an emergency evacuation upon landing.

Coordinate with the lead cabin crew member to assess the situation in the passenger cabin and to prepare passengers for a potential emergency landing and evacuation. If the smoke or fire is in the passenger cabin, direct the cabin crew to relocate passengers as far away from the affected area as possible and to use portable fire extinguishers to combat the fire.

After landing, ensure that all passengers and crew evacuate the aircraft safely and that emergency services are provided with accurate information about the nature and location of the fire or smoke.

Complete all necessary documentation and reports, and participate in any investigations or debriefings as required by Mukamalah Aviation and relevant authorities. Provide support and assistance to any passengers or crew members affected by the event.

Mukamalah Aviation crews receive regular training on emergency descent and in-flight fire/smoke procedures, including hands-on practice with oxygen masks, fire extinguishers, and smoke hoods. Crews are expected to maintain a high level of proficiency in these critical emergency procedures.



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4 ABNORMAL AND EMERGENCY PROCEDURES

4.10 DECOMPRESSION PROCEDURES

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4.10 DECOMPRESSION PROCEDURES

Refer to OM-C section 4.3.



4.11 POST-INCIDENT/ACCIDENT PROCEDURES

4.11.1 Flight Crew Duties

In the event of an incident or accident, Mukamalah Aviation flight crews have critical responsibilities to ensure the safety and well-being of passengers and crew, to preserve evidence, and to cooperate with emergency responders and investigators. Refer to OM-A chapter 11 for a detailed description of flight crew duties following an incident or accident.

4.11.2 Preservation of Cockpit Voice Recorder (CVR) and Flight Data Recorder (FDR) Information

The Cockpit Voice Recorder (CVR) and Flight Data Recorder (FDR) provide essential information for investigating incidents and accidents. Mukamalah Aviation flight crews must take appropriate steps to preserve CVR and FDR data following an event.

After an incident or accident, the flight crew shall not erase or overwrite the CVR or FDR, regardless of the perceived severity of the event. If the aircraft is equipped with a CVR/FDR quick access recorder (QAR), remove the QAR media and secure it for investigators.

If the aircraft is not equipped with a QAR, or if the QAR media cannot be removed, the flight crew shall pull and collar the CVR/FDR circuit breakers to prevent inadvertent overwriting of the data. The CVR/FDR circuit breakers shall remain pulled until investigators arrive to download the data.

In the event of a water evacuation or ditching, the flight crew should attempt to remove the CVR/FDR underwater locator beacon (ULB) and take it with them to aid in locating the recorders. If unable to remove the ULB, note its color and any identifying marks to assist investigators in locating the recorders.

The flight crew shall document the CVR/FDR unit make, model, and serial number, as well as the duration of the recording (30 minutes, 2 hours, etc.), to aid investigators in analyzing the data.

If the aircraft is to be moved or put back into service before investigators arrive, coordinate with Mukamalah Aviation's safety department and the investigating authority to ensure that CVR/FDR data is properly preserved and downloaded.

Refrain from discussing the content of CVR/FDR recordings with anyone except authorized investigators or Mukamalah Aviation safety personnel. The data on these recorders is sensitive and confidential, and its premature release could compromise the investigation.

Mukamalah Aviation crews receive training on post-incident/accident procedures, including the importance of preserving CVR and FDR data. Regular reinforcement of these procedures through bulletins, briefings, and recurrent training helps to ensure that crews are prepared to act appropriately in the event of an incident or accident.



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4 ABNORMAL AND EMERGENCY PROCEDURES

4.12 PROCEDURES FOR THE USE OF PORTABLE
ELECTRONIC DEVICES (PEDS)

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4.12 PROCEDURES FOR THE USE OF PORTABLE ELECTRONIC DEVICES (PEDS)

Refer to OM-F.



5. PERFORMANCE

5.1 GENERAL POLICIES AND PROCEDURES

Performance calculations are a critical aspect of flight planning and execution, ensuring that the aircraft operates within its limitations and maintains adequate safety margins. The following policies and procedures shall be adhered to when conducting performance calculations for B737-800 operations:

1. All performance calculations shall be based on the most current and accurate data provided in the Aircraft Flight Manual (AFM), Flight Crew Operations Manual (FCOM), and other relevant OEM documentation.
2. Flight crew shall use the approved performance calculation tools, such as the OEM-provided performance software (Boeing OPT) or the on-board Flight Management System (FMS), to determine takeoff, landing, and en-route performance parameters. The PIC has the discretion to apply any margin of safety deemed necessary.
3. Performance calculations shall account for all relevant factors, including but not limited to:
 - a. Aircraft weight and balance
 - b. Runway conditions (e.g., length, slope, surface contamination)
 - c. Weather conditions (e.g., temperature, wind, pressure altitude)
 - d. Obstacle clearance requirements
 - e. Aircraft configuration (e.g., flap and thrust settings)
 - f. Applicable NOTAMs or performance restrictions
4. Flight crew shall cross-check performance calculations to ensure accuracy and consistency. Any discrepancies shall be resolved before flight.
5. Performance calculations shall be completed during the flight planning stage and reviewed during the pre-flight briefing. Any changes to the conditions affecting performance shall be assessed, and calculations updated accordingly.
6. The most restrictive performance limitations shall be applied when multiple limiting factors are present (e.g., runway length, obstacle clearance, and aircraft weight).
7. Adequate safety margins shall be applied to all performance calculations, as specified in the AFM, FCOM, or company policy. These safety margins shall not be reduced without proper authorization and risk assessment.
8. Takeoff and landing performance calculations shall be based on the actual conditions existing at the time of departure or arrival, respectively. Flight crew shall not use assumed or forecast conditions for these critical phases of flight.
9. En-route performance calculations, such as drift-down procedures or engine-out scenarios, shall be performed in accordance with the AFM and FCOM guidelines, considering the actual or expected conditions along the planned route.
10. Flight crew shall be familiar with the performance limitations and procedures specific to the B737-800, including any variations due to aircraft modifications or operator-specific requirements.



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5	PERFORMANCE
5.1	GENERAL POLICIES AND PROCEDURES

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11. In the event of a performance-related incident or accident, flight crew shall follow the company's reporting procedures and cooperate with any subsequent investigations.
12. Regular training and proficiency checks shall be conducted to ensure flight crew maintain a thorough understanding of performance calculations and their application to B737-800 operations.



5.2 PERFORMANCE DATA

5.2.1 Takeoff Performance Data

Takeoff performance data for the B737-800 is available through various sources, primarily the Electronic Flight Bag (EFB) and the Flight Crew Operations Manual (FCOM).

1. EFB Takeoff Application:

The primary source for takeoff performance data is the EFB takeoff application, which is part of the Boeing Onboard Performance Tool (OPT). Determination of takeoff speeds and limiting weights for a specific airport, taking into account factors such as:

- Runway length and slope
- Airport elevation
- Ambient temperature
- Wind conditions
- Aircraft weight and balance
- Flap and thrust settings

Detailed procedures for using the EFB takeoff application can be found in the EFB document (OM-F). Flight crew shall familiarize themselves with these procedures and ensure they are proficient in using the application.

2. FCOM Performance Dispatch Section:

The FCOM also provides takeoff performance data in the "Performance Dispatch" subsection, under "Takeoff." This section includes information such as:

- Takeoff speed schedules
- Thrust settings
- Climb profiles
- Obstacle clearance requirements
- Runway contamination considerations

While the EFB takeoff application is the primary tool for determining takeoff performance, flight crew shall be familiar with the data provided in the FCOM and use it as a reference and cross-check.

For maximum allowable brake energy for rejected takeoff, refer to MEL.

5.2.2 Noise Abatement Procedures

Refer to OM part C.

5.2.3 Cruise Performance Data

Cruise data helps flight crew determine optimal cruise altitudes, speeds, and fuel consumption rates, taking into account factors such as aircraft weight, atmospheric conditions, and wind. The FCOM Dispatch Performance chapter provides detailed information on cruise performance, including specific range (SR), long-range cruise (LRC), and maximum cruise thrust settings. Flight crew shall refer to this chapter for guidance on selecting the most appropriate cruise parameters for each flight.



The inflight Performance chapter provides information on single engine performance in case of emergency.

Refer to FCOM PERFORMANCE.

5.2.4 Descent Performance Data

For normal descent procedures, refer to FCOM Dispatch Performance chapter. For drift downs and emergency descent refer to In-flight Performance chapter.

5.2.5 Approach and Landing Performance Data

The FCOM Performance chapter provides detailed information on approach and landing speeds, flap settings, landing on contaminated runways and thrust reverser usage.

In the event of an emergency (requiring a landing at the nearest suitable airport) or non-normal condition that affects landing performance, the normal or non-normal configuration landing distance (OPT enroute or PI data) should be checked.

With a non-normal condition that adversely affects airplane handling, a suitable safety margin should include a fixed distance (as opposed to factorization) to account for the additional uncertainty in achieving touchdown at the 1000-feet point.

It is not possible to provide a fixed safety margin due to the numerous potential scenarios. When establishing a suitable safety margin the following should be considered:

1. Urgency of the landing.
2. The features of the airport and the implications of a possible overrun.
3. Likelihood of achieving touchdown at the 1000-feet point at the correct speed.
4. Alternate options.

If using the calculated landing distance from the OPT Enroute application or PI QRH chapter, without excess runway available, pilots must use maximum manual braking to ensure the airplane stops on the runway, and to be aware that the wheel thermal plugs might melt.

Refer to FCOM Dispatch and In-flight Performance.



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5.3	SUPPLEMENTARY PERFORMANCE DATA

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5.3 SUPPLEMENTARY PERFORMANCE DATA

Performance impacts from any non-standard configurations are evaluated using the Electronic Flight Bag (EFB) performance module, in line with the penalties outlined in the Minimum Equipment List (MEL). The PIC shall ensure that the relevant inoperative systems impacting performance are taken into account.

5.3.1 Icing Conditions

Refer to de-icing and anti-icing manual.

Performance corrections for icing conditions are conservatively estimated in the FCOM and QRH. Performance data for operations in icing conditions is available through the EFB performance applications. This provides flight crew with the necessary adjustments to takeoff, cruise, descent, and landing performance parameters when operating in known or forecast icing conditions. Flight crew shall input the relevant icing data into the EFB applications, such as the severity and extent of the icing conditions and impact on runway, to obtain accurate performance adjustments.

5.3.2 Non-Standard Atmospheric Conditions

Non-standard atmospheric conditions that differ from those established in the FCOM and QRH shall be accounted for through the performance module in the EFB to obtain accurate performance adjustments for takeoff, cruise, descent, and landing phases of flight.



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5.3	SUPPLEMENTARY PERFORMANCE DATA

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6. FLIGHT PLANNING

6.1 GENERAL REQUIREMENTS

6.1.1 Fuel Requirements

GACAR § 121.1381

The Fuel Requirements section of this manual outlines Mukamalah Aviation's policies for determining minimum required fuel for each flight. These policies comply with the regulations stipulated in GACAR Part 121 and consider factors such as taxi fuel, trip fuel, contingency fuel, alternate fuel (if required), final reserve fuel, and additional fuel for deviations or emergencies. Aircraft dispatchers shall follow the fuel planning procedures and ensure each flight meets the minimum fuel requirements before dispatch.

PIC has the final authority to approve the fuel required for the flight.

6.1.2 ETOPS Area of Operations

This section is not applicable as Mukamalah Aviation is not approved for ETOPS operations.

6.1.3 Weather Requirements

GACAR § 121.1349

Aircraft dispatchers shall conduct a thorough review of all relevant weather reports, forecasts, and NOTAMs for each flight. Dispatchers must be familiar with reported and anticipated weather conditions along the planned route to evaluate any potential impacts on flight safety. Flights may only be dispatched when the forecast weather conditions at the destination and alternate airports meet the minimum regulatory requirements and Mukamalah Aviation's weather standards specified in the Weather Minima section of the OM-A section 8.1.

6.1.4 NOTAM and AIS Briefing

GACAR § 121.1353

Dispatchers shall review all applicable NOTAMs and Aeronautical Information Services (AIS) bulletins relevant to each flight and present it to the PIC. This includes NOTAMs related to airports, runways, navigation aids, airspace restrictions, and other operational considerations that may affect the safe planning and execution of the flight. Any relevant NOTAM and AIS information shall be included in the dispatch briefing to the flight crew.

6.1.5 Operational Flight Plan

GACAR § 121.1333

An Operational Flight Plan (OFP) shall be prepared by the aircraft dispatcher for each flight operated by Mukamalah Aviation and shall be approved by the PIC before dispatching the flight. The OFP shall include all required information such as planned route, fuel loads, aircraft performance data, and any special considerations. The Dispatch Release section of this manual provides detailed procedures for preparing and issuing the OFP as part of the dispatch release process. Dispatchers shall ensure the OFP is accurate, complete, and in compliance with all applicable regulations and company policies.

The PIC shall sign the OFP.



6.2 FUEL PLANNING

6.2.1 Fuel Policy

GACAR § 121.1381

Mukamalah Aviation's fuel policy is designed to ensure safe and efficient operations while complying with the regulations. The policy incorporates industry best practices and provides clear guidance for aircraft dispatchers and flight crew regarding fuel planning and management.

The minimum required fuel for each flight shall be determined by considering the following factors:

1. Taxi fuel
2. Trip fuel from takeoff to landing at the destination airport using aircraft-specific data as provided by the manufacturer.
3. Contingency fuel - 5% of planned trip fuel or fuel for 5 minutes of holding at 1500 ft, whichever is greater.
4. Destination alternate fuel (if required) - fuel to fly a missed approach at the destination, climb to cruise altitude, fly to the alternate airport, and land.
5. Final reserve fuel - based on landing weight, fuel to hold for 30 minutes at 1500 ft
6. Additional fuel for deviations or emergencies, if this exceeds the fuel calculated in the previous steps

Note: For fuel calculation purposes, if the Departure, Destination, or alternate SID/STAR are not part of the operational flight plan route, an additional 20 nm of fuel shall be added for each procedure and included within the accumulated distance (SV). The Minimum Dispatch Fuel shall be calculated considering the aircraft weight, NOTAMs, wind, expected weather conditions, anticipated delays, MEL/CDL, and the aircraft Fuel Bias (APD – Aircraft Performance Degradation Factor).

Where a flight is operated without a destination alternate, the amount of fuel required to enable the airplane to fly for 15 minutes at holding speed at 1500 ft above destination aerodrome elevation in standard conditions.

6.2.2 Extra Fuel

The Pilot-in-Command (PIC) has the discretion to request up to 500 kg of additional fuel above the minimum required fuel, based on their assessment of the flight conditions, without the need for reporting. This additional fuel may be used to account for factors such as unexpected weather conditions, air traffic delays, or other operational considerations.

If the PIC determines that more than 500 kg of additional fuel is necessary, they shall report this to the Mukamalah Aviation Flight Operations Department using the established reporting procedures. The PIC shall provide a justification for the extra fuel, which may include factors such as:

1. Adverse weather conditions
2. Anticipated air traffic delays
3. Inoperative equipment that may affect fuel consumption
4. Other factors that may impact the safe completion of the flight



6.2.3 Tankering Fuel

Tankering fuel involves uploading additional fuel at the departure airport to avoid refueling at the destination airport, often for financial, fuel quality, or fuel supply reliability reasons. Mukamalah Aviation allows fuel tankering when it provides financial benefits due to fuel price differences between the origin and destination airports or when there are concerns about fuel quality or supply reliability at the destination.

1. When planning fuel tankering, dispatchers and flight crew shall consider the following:
The flight plan route and potential shortcuts, which can significantly affect fuel consumption.
2. The condition of the takeoff and landing runways. Fuel tankering is not recommended if the runways are contaminated or expected to be contaminated.
3. The maximum landing weight permitted for tankering with the given payload

When fuel tankering is planned by the dispatcher, two fuel figures (minimum dispatch release fuel and tankering fuel) shall be provided on the dispatch release. In this case, an Extra Fuel report is not required. However, if the PIC decides not to tanker fuel or to tanker less than the maximum release fuel for reasons other than the maximum landing weight permitted for tankering with the given payload, the PIC shall report the Fuel Tankering.

Dispatchers and flight crew shall carefully evaluate the benefits and risks associated with fuel tankering on a case-by-case basis, taking into account operational, safety, and financial considerations. The decision to tanker fuel shall always prioritize safety and compliance with Mukamalah Aviation's fuel policy and applicable regulations.

6.2.4 Minimum Fuel Advisory

When the fuel supply has reached a state where, upon reaching the destination, the aircraft cannot accept any undue delay, the flight crew shall advise ATC of their minimum fuel status.

Note: The flight crew should be aware that a minimum fuel advisory does not constitute an emergency situation but rather serves as an advisory indicating that an emergency situation could develop should any undue delay occur.

The flight crew should also understand that a minimum fuel advisory does not imply a need for traffic priority. ATC will take the advisory into account when determining the arrival sequence and any potential delays.

- a. When declaring minimum fuel status, the flight crew shall use the following procedure:
On initial contact with ATC, state the call sign followed by the term "minimum fuel."

Example: "Mukamalah Aviation 123, minimum fuel."

- b. Provide any additional information requested by ATC, such as the remaining fuel endurance or the nature of the situation.
- c. Continue to monitor the fuel status and keep ATC informed of any changes.

IF THE FUEL SUPPLY FURTHER DIMINISHES AND THE FLIGHT CREW DETERMINES THAT A LANDING AT THE INTENDED DESTINATION MAY NOT BE POSSIBLE, THEY SHALL DECLARE A "MAYDAY" AND INFORM ATC OF THEIR "FUEL EMERGENCY" STATUS. THIS DECLARATION INDICATES THAT IMMEDIATE ACTION IS REQUIRED TO ENSURE THE SAFE LANDING OF THE AIRCRAFT.



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6 FLIGHT PLANNING

6.2 FUEL PLANNING

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6.2.5 Fuel Verification

To ensure accurate fuel planning and management, Mukamalah Aviation requires the flight crew to verify the trip and alternate fuel figures provided in the Operational Flight Plan (OFP) or Dispatch Release.

When an OFP is issued, the First Officer (F/O) shall verify the burn-off fuel figure using the quick reference charts and/or the OPT in-flight performance application.

In the absence of an OFP, the F/O shall prepare a Company Flight Log prior to each flight. The Flight Log or OFP must be based on the planned route and alternate airport shown in the Dispatch Release. If, for any reason, a non-standard route or alternate is shown in the Dispatch Release, this information must be accurately reflected in the Flight Log or OFP.

The fuel verification process shall include the following steps:

1. Compare the trip and alternate fuel figures in the OFP or Dispatch Release with the values obtained from the quick reference charts or Boeing OPT Inflight Application.
2. If there are any discrepancies, clarify with the dispatcher and make necessary adjustments to the fuel load.
3. Ensure that the final fuel figures in the OFP or Flight Log align with the planned route, alternate airport, and any non-standard routing or alternate specified in the Dispatch Release.
4. Both the Captain and the F/O shall independently verify the fuel figures and confirm their agreement before signing the OFP or Flight Log.

6.2.6 In-Flight Fuel Management

Refer to OM-A section 8.3.7.

6.2.7 Fuel Calculation Methods

Mukamalah Aviation utilizes advanced computerized fuel calculation systems that is based on OEM supplied data to streamline the fuel planning process and minimize the risk of errors. These systems take into account a wide range of variables, including:

1. Aircraft type and performance data
2. Route and altitude information
3. Wind conditions and temperature
4. Payload and cargo load
5. Fuel density and consumption rates

The computerized fuel calculation database are integrated with the flight planning software and provide real-time updates based on the latest available information. The systems are designed to optimize fuel efficiency while ensuring compliance with Mukamalah Aviation's fuel policy and applicable regulations.



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6.3	WEATHER PLANNING

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6.3 WEATHER PLANNING

Refer to OM-A section 8.4 All Weather Operations.



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6	FLIGHT PLANNING
6.4	ETOPS REQUIREMENTS

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6.4 ETOPS REQUIREMENTS

Not applicable for Mukamalah Aviation.



6.5 PERFORMANCE PLANNING

The flight crew and dispatchers shall carefully assess the take-off, en-route, and landing performance for each flight, taking into account factors such as aircraft weight, wind conditions, atmospheric conditions, and airport capabilities.

6.5.1 Take-off Performance

The flight crew shall review the take-off performance data provided in the Operational Flight Plan (OFP) and ensure that it meets or exceeds the minimum requirements for safe operations. Any concerns or discrepancies shall be immediately reported to the Flight Operations Department for resolution.

Refer to chapter 5.

6.5.2 En-Route Performance

The flight crew and dispatchers shall assess the en-route performance to ensure that the aircraft can safely navigate the planned route while maintaining appropriate fuel reserves. The following factors shall be considered when evaluating en-route performance:

1. Aircraft weight and balance
2. Wind conditions and temperature at various altitudes
3. Terrain and obstacle clearance
4. Air Traffic Control (ATC) restrictions and procedures
5. Fuel consumption and reserves
6. Alternative routes and diversion airports

The OFP shall include detailed information on the planned en-route performance, including the optimum altitude, expected fuel consumption, and estimated flight times. The flight crew shall monitor the actual en-route performance and make adjustments as necessary to ensure safe and efficient operations.

6.5.3 Landing Performance

The OFP shall take into account the landing performance data for both the destination and alternate airports. The flight crew shall review this information and ensure that it meets or exceeds the minimum requirements for safe operations. If the landing performance is marginal or does not meet the required criteria, the flight crew shall consider alternative airports or adjust the fuel load and payload accordingly.



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6.6 WEIGHT AND BALANCE

Refer to chapter 7.



6.7 FLIGHT DOCUMENTATION

6.7.1 Operational Flight Plan

GACAR 121.1513, 121.1333(a)

Refer to OM-A 8.1.10.

6.7.2 ATC Flight Plan

GACAR §121.1509, 121.1513, 91.73

Refer to OM-A 8.1.9.

6.7.3 Dispatch Release

GACAR 121.1309

Refer to OM-A section 2.4 and OM-A section 8.1.10.3.

6.7.4 Weather Documentation

Mukamalah Aviation dispatchers and flight crew shall refer to **the Jeppesen Airway Manual** for comprehensive information on interpreting and applying meteorological information for flight planning purposes.

In addition to the Jeppesen Airway Manual, dispatchers and flight crew shall utilize the following weather documentation:

1. Aerodrome Forecasts (TAFs) for the departure, destination, and alternate airports
2. Meteorological Aerodrome Reports (METARs) for the departure, destination, and alternate airports
3. Significant Weather Charts (SWCs) for the planned route and any potential diversion routes
4. Wind and temperature charts for flight level selection and fuel planning
5. Satellite imagery and radar data, when available, to identify areas of convective activity or other significant weather systems

Dispatchers shall ensure that the most current and relevant weather documentation is included in the flight package and that the flight crew has easy access to this information. The flight crew shall review the weather documentation during their preflight briefing and discuss any potential impacts on the planned flight.

6.7.5 NOTAM Documentation

Notices to Airmen (NOTAMs) provide essential information regarding the operational status of airports, navigation aids, airspace restrictions, and other factors that may affect flight operations. Dispatchers shall include all relevant NOTAMs in the flight package, and the flight crew shall review these NOTAMs during their preflight briefing.

NOTAMs shall be obtained from authorized sources, such as the Saudi Arabia Aeronautical Information Services (AIS), other relevant government authorities or the Jeppesen Airway Manual. Dispatchers shall verify the currency and applicability of each NOTAM and highlight any critical information for the flight crew's attention.

The flight crew shall pay particular attention to NOTAMs related to:

1. Airport closures, runway restrictions, or changes in operating hours
2. Inoperative navigation aids or communication facilities



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6.7	FLIGHT DOCUMENTATION

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3. Temporary airspace restrictions or changes to air traffic control procedures
4. Hazardous weather conditions or other safety-related information

Any NOTAMs that may significantly impact the planned flight shall be discussed between the dispatcher and the flight crew, and appropriate adjustments to the flight plan shall be made as necessary. NOTAMs impacting aircraft performance shall be assessed before departure.

6.7.6 Airport Charts and Plates

Airport charts and plates provide essential information for safe and efficient ground operations, takeoffs, approaches, and landings. Dispatchers shall include the most current airport charts and plates for the departure, destination, and alternate airports in the flight package.

The flight crew shall review the airport charts and plates during their preflight briefing, paying particular attention to:

1. Runway lengths, widths, and surface conditions
2. Instrument approach procedures and minima
3. Obstacle clearance requirements and terrain features
4. Taxi routes and airport layout
5. Special airport procedures or restrictions

The flight crew shall also review any applicable NOTAMs in conjunction with the airport charts and plates to identify any temporary changes or restrictions that may affect ground operations or approach procedures.

Dispatchers and flight crew shall report any discrepancies or errors in the airport charts and plates to the appropriate authorities and to Mukamalah Aviation's Flight Operations Department for follow-up action.



6.8 FLIGHT CREW BRIEFING

The flight crew briefing is a critical component of the preflight planning process, ensuring that the Captain and First Officer have a shared understanding of the flight's objectives, potential challenges, and contingency plans. The briefing shall cover the following key areas:

6.8.1 Fuel Requirements

The Captain and First Officer shall review the fuel requirements for the flight, including:

1. Minimum required fuel per the Operational Flight Plan (OFP)
2. Any additional fuel requested by the Captain
3. Fuel tankering considerations, if applicable
4. Fuel consumption rates and expected fuel remaining at key points along the route

The flight crew shall discuss any concerns or discrepancies related to the fuel plan and ensure that the loaded fuel meets or exceeds the minimum requirements for safe operation.

6.8.2 ETOPS Considerations

Not applicable for Mukamalah Aviation.

6.8.3 Weather and NOTAM Review

The flight crew shall conduct a thorough review of the weather documentation and NOTAMs provided by the dispatcher, discussing the potential impacts on the flight, such as:

1. Enroute weather conditions and any areas of convective activity or turbulence
2. Destination and alternate airport weather, including ceiling, visibility, and wind conditions.
3. Any weather-related NOTAMs or airport restrictions
4. Contingency plans for weather avoidance or diversion, if necessary

The Captain and First Officer shall share their observations and concerns, ensuring a common understanding of the weather situation and its potential effects on the flight.

6.8.4 Performance Limitations

The flight crew shall review the aircraft's performance limitations, taking into account:

1. Takeoff and landing performance data, considering the actual weather conditions and runway status
2. Enroute performance, including optimum altitude and any terrain or obstacle clearance considerations
3. Any MEL/CDL items that may affect aircraft performance.
4. Any NOTAM that may have an impact on performance.
5. Adjustments to the flight plan or payload, if necessary, to ensure safe operation within the aircraft's performance envelope

The Captain and First Officer shall discuss any performance-related concerns and agree on the appropriate course of action.



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6.8	FLIGHT CREW BRIEFING

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6.8.5 Weight and Balance Review

The flight crew shall review the aircraft's weight and balance documentation, ensuring that:

1. The actual payload and fuel load are within the aircraft's structural and performance limits
2. The center of gravity (CG) is within the acceptable range for takeoff, enroute, and landing
3. Any last-minute changes to the payload or seating configuration are properly accounted for

The Captain and First Officer shall address any weight and balance discrepancies with the dispatcher and make necessary adjustments to the load plan or fuel load, as required. The Pilot in Command (PIC) holds the ultimate responsibility for approving weight distribution and trim configurations. Refer to chapter 7.

6.8.6 Flight Documentation Review

The flight crew shall conduct a final review of all flight documentation, including:

1. Operational Flight Plan (OFP)
2. Weather and NOTAM briefing package
3. Airport charts and plates
4. Aircraft performance and limitations data
5. Company-specific procedures and guidance

The Captain and First Officer shall ensure that all required documentation is present, current, and complete, and that any discrepancies or concerns have been addressed with the dispatcher. Cross-checking of every document in the flight envelope is mandatory between the PIC and the first officer.



7. MASS AND BALANCE

This chapter provides guidance on the steps pilots should take to ensure that the aircraft is loaded correctly and that the load sheet is prepared accurately, maintaining the aircraft's center of gravity (CG) within the certified envelope for safe flight.

7.1 AIRCRAFT LOADING

Proper aircraft loading is essential for ensuring the B737-800 is operated within its weight and balance limitations. The following procedures shall be followed by flight crew to verify correct loading:

1. Load Sheet Review:
 - a. Obtain the load sheet from the ground handling agent or load control.
 - b. Verify that the load sheet is for the correct flight and aircraft registration.
 - c. Check that the load sheet is signed and dated by the responsible person.
2. Passenger and Cargo Distribution:
 - a. Review the passenger distribution in each cabin section and compare it to the load sheet.
 - b. Check that the cargo distribution in the forward and aft cargo compartments matches the load sheet.
 - c. Ensure that any special loads, such as live animals or dangerous goods, are properly accounted for and positioned according to the load sheet and relevant regulations.
3. Weight and Balance Verification:
 - a. Cross-check the Zero Fuel Weight (ZFW), Total Traffic Load (TTL), and Take-off Weight (TOW) against the load sheet and the EFB performance application.
 - b. Verify that the ZFW, TTL, and TOW are within the aircraft's structural and performance limitations.
 - c. Check that the aircraft's Center of Gravity (CG) is within the allowable limits for the specific flight conditions, as provided by the EFB performance application or the AFM.
4. Load Discrepancies:
 - a. If any discrepancies are found between the actual loading and the load sheet, or if the weight and balance limitations are exceeded, immediately notify the ground handling agent or load control.
 - b. Request a revised load sheet and re-verify the loading and weight and balance data.
 - c. If the discrepancies cannot be resolved or if the weight and balance remain outside of limits, do not accept the load sheet and do not proceed with the flight until the issues are corrected.
5. Load Sheet Acceptance and Filing:
 - a. Once the load sheet has been verified and all loading and weight and balance data are within limits, accept and sign the load sheet.
 - b. File the signed copy of the load sheet in the designated location on the flight deck for reference during the flight and for post-flight records.



7.2 LOAD SHEET PREPARATION

Mukamalah Aviation creates load sheets using the designated EFB application. For instructions on how to prepare load sheets, please consult the Flight Operations Manual (OM-F).

The following steps are involved in load sheet preparation:

1. Passenger and Cargo Weights:
 - a. Start from the available Dry Operating Weight (DOW) and respective Dry Operating Index (DOI).
 - b. Account for the total number of passengers and their distribution in the cabin sections, using either standard or actual passenger weights as per the airline's policy.
 - c. Add the total weight of the checked baggage and cargo, including any special loads, as provided by the ground handling agent or load control.
2. Fuel Weight:
 - a. Include the total fuel weight, as determined by the flight crew during the flight planning process, taking into account taxi fuel, trip fuel, contingency fuel, alternate fuel, and any additional fuel required.
 - b. The established load sheet application includes the fuel envelope to account for fuel consumption during the flight.
3. Total Traffic Load and Zero Fuel Weight:
 - a. Sum the passenger, cargo, and checked baggage weights to obtain the Total Traffic Load (TTL).
 - b. Add the TTL to the DOW to calculate the Zero Fuel Weight (ZFW).
4. Take-off Weight and Landing Weight:
 - a. Add the total fuel weight to the ZFW to obtain the Take-off Weight (TOW).
 - b. Subtract the trip fuel from the TOW to determine the Landing Weight (LW).
5. Balance and Trim:
 - a. Use the aircraft's load and balance system in the EFB suite, or manual load and trim sheet, to calculate the aircraft's Center of Gravity (CG) position.
 - b. Ensure that the CG position is within the allowable limits for the specific flight conditions, as provided by the aircraft manufacturer.
 - c. Determine the required trim setting for take-off based on the CG position and the aircraft's performance data.
6. Load Sheet Completion and Distribution:
 - a. Complete the load sheet, ensuring all weights, balance, and trim data are accurately recorded.
 - b. Sign and date the load sheet, confirming that the data is correct and within the aircraft's limitations.
 - c. Distribute copies of the load sheet to the ground handling agent, and other relevant personnel as per the procedures.



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7	MASS AND BALANCE
7.3	LAST MINUTE CHANGES

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7.3 LAST MINUTE CHANGES

Not applicable for Mukamalah Aviation.



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7	MASS AND BALANCE
7.4	FLIGHT CREW RESPONSIBILITIES

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7.4 FLIGHT CREW RESPONSIBILITIES

Flight crew, particularly the Pilot-in-Command (PIC), have the ultimate responsibility for ensuring that the aircraft is loaded and operated within its weight and balance limitations. The following are the specific responsibilities of the flight crew regarding weight and balance:

1. Pilot-in-Command Authority:
 - a. The PIC has the final authority to accept or reject the load sheet and the aircraft's loading.
 - b. If the PIC determines that the aircraft is not loaded within its weight and balance limitations or that the load sheet is inaccurate, they shall not proceed with the flight until the issues are resolved.
 - c. The PIC may delegate certain weight and balance tasks to other crew members, but retains overall responsibility for the safety of the flight.
2. Coordination with Ground Handling Team:
 - a. Flight crew shall establish effective communication with the ground handling team, including load control and ramp agents, to ensure accurate and timely information exchange regarding the aircraft's loading.
 - b. The PIC or designated crew member shall participate in the load planning process, providing input on the aircraft's performance limitations, fuel requirements, and any specific loading considerations.
 - c. Flight crew shall promptly notify the ground handling team of any changes to the flight plan, passenger count, or cargo that may affect the aircraft's loading.
3. Observation of Dangerous Goods Loading:
 - a. Flight crew shall be aware of any Dangerous Goods (DG) being loaded onto the aircraft and ensure that they are properly identified, classified, packaged, marked, and labeled as per the IATA Dangerous Goods Regulations (DGR) and the Dangerous Goods Manual (DGM).
 - b. The PIC or designated crew member shall verify that the DG are loaded in accordance with the load sheet and the DGR, with special attention to the segregation and compatibility requirements.
 - c. If any discrepancies or non-compliances are observed, the flight crew shall immediately inform the ground handling team and ensure that the DG are handled correctly before accepting them for transport.
 - d. A NOTOC shall be signed and approved prior to loading any DG onboard.
4. Load Sheet Verification and Acceptance:
 - a. Flight crew shall thoroughly review the load sheet to ensure that all weights, balance, and trim data are accurate and within the aircraft's limitations.
 - b. The PIC or designated crew member shall cross-check the load sheet data against the actual loading of the aircraft, including passenger distribution and cargo placement.
 - c. If the load sheet is found to be satisfactory, the PIC shall sign and accept the document, indicating that the aircraft is loaded within its weight and balance limitations.
5. In-Flight Monitoring and Adjustments:



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7 MASS AND BALANCE

7.4 FLIGHT CREW RESPONSIBILITIES

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- a. During the flight, the flight crew shall monitor the aircraft's performance and handling characteristics to detect any signs of weight and balance issues.
 - b. If any abnormalities are observed, the flight crew shall assess the situation and take appropriate actions, such as adjusting the trim, reducing the aircraft's speed, or diverting to an alternate airport if necessary.
 - c. Flight crew shall also be prepared to make in-flight adjustments to the weight and balance calculations in case of unexpected events, such as a change in the flight plan or the need to perform overweight landing.
6. Reporting and Documentation:
- a. Flight crew shall report any weight and balance discrepancies, incidents, or accidents to the airline's safety department and relevant authorities as per the established procedures using the safety reporting system. Refer to SMM and OM-A chapter 3.
 - b. The PIC shall ensure that all weight and balance documentation, including the load sheet and any associated reports, are properly completed, signed, and filed for record-keeping purposes.



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7 MASS AND BALANCE
7.5 IRREGULAR OPERATIONS

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7.5 IRREGULAR OPERATIONS

Irregular operations, such as those involving weight and balance issues, require flight crew to follow specific procedures to ensure the safe continuation of the flight. These procedures may deviate from standard operating practices and are designed to mitigate potential risks associated with the irregular situation. Flight crew shall be familiar with the relevant sections of the FCOM and Quick Reference Handbook (QRH) that address weight and balance-related irregular operations, such as overweight landing and inoperative center tank valve.

7.5.1 Overweight Landing

An overweight landing occurs when the aircraft's landing weight exceeds the Maximum Landing Weight (MLW) specified in the Aircraft Flight Manual (AFM). This situation may arise due to unexpected circumstances, such as a medical emergency requiring an immediate landing or a failure to consume sufficient fuel during the flight. Overweight landings pose additional risks to the aircraft's structure, landing gear, and braking system, and require special handling by the flight crew.

When an overweight landing is anticipated, flight crew shall refer to the FCOM Abnormal Procedures section for specific guidance. This section provides information on the following aspects of overweight landing:

1. Determining the aircraft's actual landing weight and comparing it to the MLW
2. Assessing the runway length, surface conditions, and braking action required for the overweight landing.
3. Adjusting the approach speed, flap settings, and touchdown point to accommodate the increased weight.
4. Using the autobrake system and thrust reversers to optimize stopping performance.
5. Performing a go-around if the approach becomes unstable or if the landing distance is insufficient.
6. Inspecting the aircraft's structure, landing gear, and brakes after the overweight landing and reporting any discrepancies

Flight crew shall also notify the maintenance department and the relevant authorities of the overweight landing, as per the established procedures.

7.5.2 Fuel Jettisoning

Not applicable for B737.



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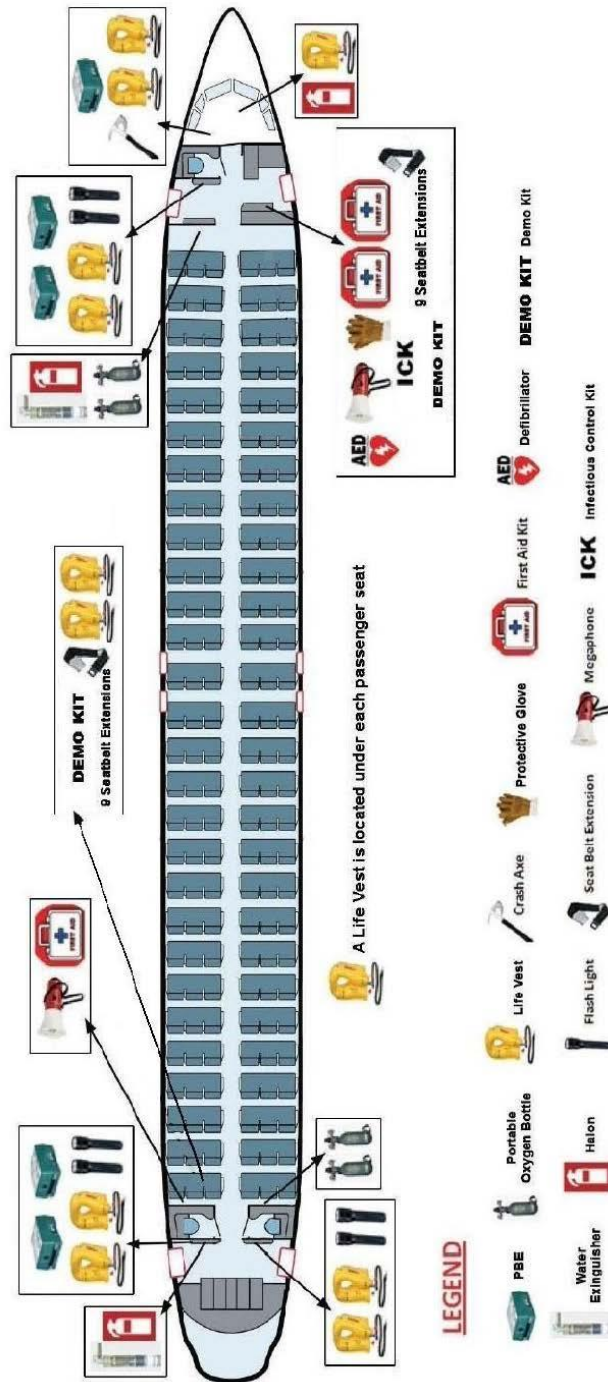
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8.1	EMERGENCY EQUIPMENT CONFIGURATION

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8. SURVIVAL AND EMERGENCY EQUIPMENT

8.1 EMERGENCY EQUIPMENT CONFIGURATION

8.1.1 Normal Configuration



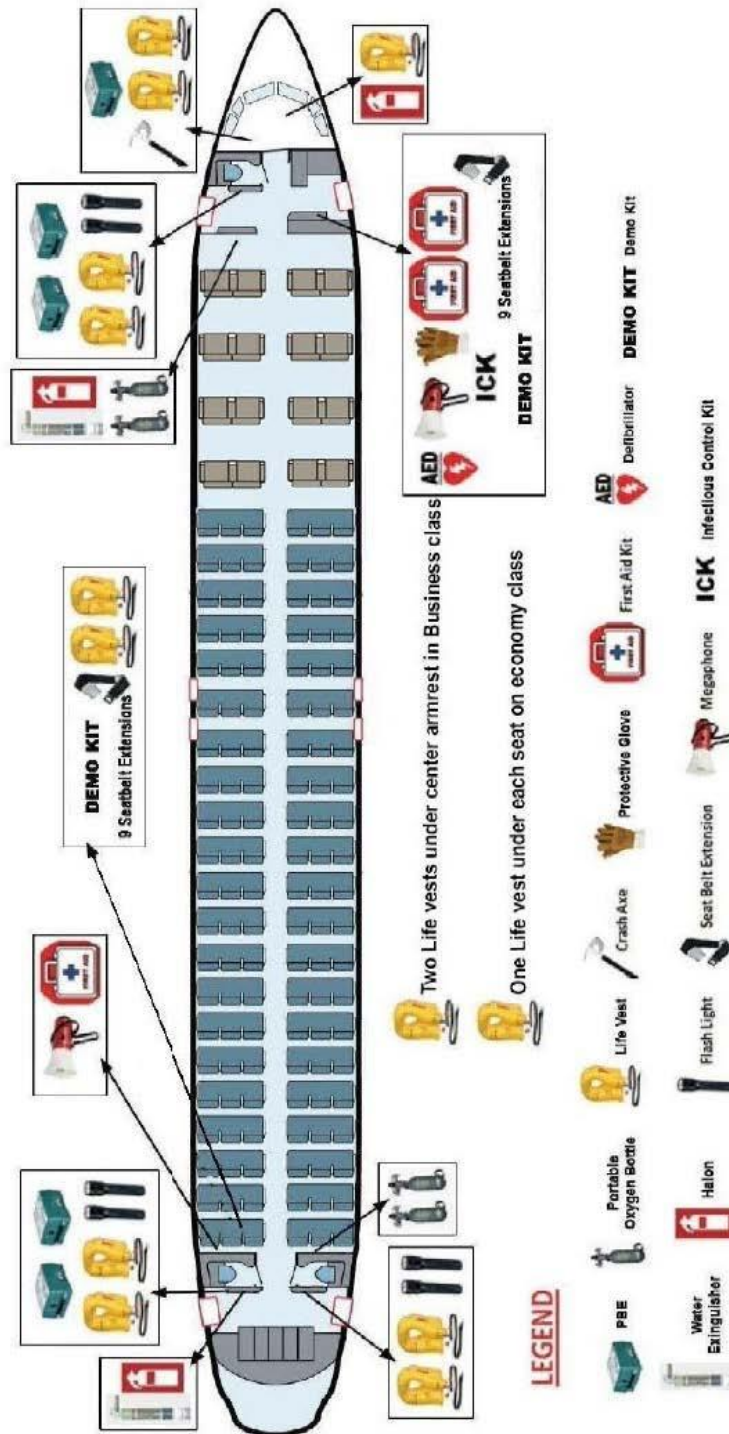


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- 8.1 EMERGENCY EQUIPMENT CONFIGURATION

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8.1.2 SP Configuration





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8 SURVIVAL AND EMERGENCY EQUIPMENT
8.2 LIFE JACKETS AND LIFE RAFTS

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8.2 LIFE JACKETS AND LIFE RAFTS

8.2.1 Life Jackets

The Aircraft are equipped with individual crew and passenger life vests. These vests are to be used in a water evacuation for flotation. Crew life vests must be secured on a person prior to conducting the passenger evacuation. All crew stations and passenger seats are fitted with one vest.

NOTE: There are two spare life vests located in the last row overhead AC L

NOTE: Infant life vest to be carried only if and when flight dictates overwater and beyond 100 nautical miles.

1. Components:
 - a. Two carbon dioxide cartridges (for automatic inflation)
 - b. Two red tubes for oral inflation and manual deflation
 - c. Battery powered light
 - d. Single strap and a clip at the end
2. Operational Procedures (Adult):
 - a. Remove from the stowage
 - b. Tear paper tab to open sealed plastic bag
 - c. Place life vest overhead
 - d. Wrap strap around waist and secure at waist
 - e. Pull to tighten
 - f. Pull red "inflation" tabs only when leaving the aircraft
 - g. Battery powered light activates when water enters the battery chamber
3. Operational Procedures (Child):
 - a. Remove from the stowage
 - b. Tear paper tab to open sealed plastic bag
 - c. Place life vest overhead
 - d. Wrap strap around waist under the leg and secure at waist
 - e. Pull to tighten
 - f. Pull red "inflation" tab" one side only when leaving the aircraft

NOTE: The Company does not have infant life vest. Should there be a flight over water exceeding 50 nautical miles beyond the shoreline, infant life vest to be carried onboard.

NOTE: If life vest does not inflate, inflation tubes are provided on each side of vest for oral inflation.

4. Operational Procedures (Infant):
 - a. When placed it will be located, in overhead bin row 28 AC L, at least 5



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8.2 LIFE JACKETS AND LIFE RAFTS

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- b. Remove from the stowage
 - c. Tear paper tab to open seal plastic bag
 - d. Place life vest overhead
 - e. Wrap strap, secure around at waist
 - f. Pull to tighten
 - g. Instruct guardian to pull red inflation tabs one side only when leaving the aircraft
5. Amount and Location:
 - a. 3 in the flight deck, behind each pilot seat: two behind PIC seat, one behind SIC seat
 - b. 1 under each CC jump seat behind the panel
 - c. 1 under each passenger seat or between the seats
 - d. 2 in last overhead bin AC left
6. Preflight Check:
 - a. Amount
 - b. Secure

8.2.2 Life Rafts

1. GACARs require that 50 nautical miles from land over water operation (flight) are equipped with life rafts and survival equipment
2. B737-800 will be fitted with a minimum number of life raft(s) as per number of souls onboard. One life raft is able to accommodate up to 36 souls with an overload capacity of 54
3. When fitted with a life raft, primary location will be over the wing exit rows in the overhead bin(s) row 13. As a secondary location, additional life rafts are to be stored in row 2 overhead bins
4. These locations are easy and safe access for cabin crews in case of inadvertent water landing (ditching)



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- 8.2 LIFE JACKETS AND LIFE RAFTS

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8 SURVIVAL AND EMERGENCY EQUIPMENT

8.2 LIFE JACKETS AND LIFE RAFTS

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5. Life rafts with survival equipment are carried on all flights when the routing takes the aircraft more than 50 nautical miles beyond shoreline
6. Life vests/flotation devices are carried on flights when the routing takes the aircraft more than 50 nautical miles
7. Life Vests/Rafts will be utilized only if an unplanned/Planned emergency (ditching) occurs. The life Vests/Rafts is designed to provide a safe and reliable flotation device in the event of an emergency ditching
8. When evacuating in a ditching, crewmembers are responsible for the door/window exits, crewmembers must board the raft immediately after all evacuation procedures are completed
9. How to use:
 - a. Remove from the stowage
 - b. Tie the activating lanyard to the seat strut/door assist handle
 - c. Open the exit
 - d. Grab the raft and throw the raft as far as you possible can
 - e. Once the raft is inflated, instruct your passengers to remove shoes and to jump in the water and climb on the raft using a boarding aid; there are two, one on each side

NOTE: If the raft does not inflate, one should immediately jump and yank the activating rope until the raft is fully inflated.

10. During evacuation in the water:
 - a. Passenger and Crew to remove all shoes and sharp items prior to boarding the raft to prevent the raft from becoming unserviceable
 - b. Ensure all passengers have their life vest on
 - c. Ensure no one inflates the vest inside the aircraft
 - d. Vests should be inflated once one is outside of the aircraft
11. Duties and Responsibilities:
 - a. Primary overwater exit should be considered first.
 - b. CC3 and CC4 to do the following:
 - i. When it is planned ditching, wear your vest during the demonstration and do not take it off
 - ii. When unplanned, put on your life vest before proceeding in the cabin
 - iii. Obtain the raft from overhead bin row 13
 - iv. CC3 Tie the lanyard to chair
 - v. CC4 assess and if safe open the exit row 13
 - vi. CC 3 and CC4 get the raft and throw as far as possible

3. Secondary exit 1L/1R whichever is more useable to;



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8 SURVIVAL AND EMERGENCY EQUIPMENT 8.2 LIFE JACKETS AND LIFE RAFTS

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- i. When it is planned ditching, wear your vest during the demonstration and do not take it off
 - ii. When unplanned, Put on your life vest before proceeding in the cabin
 - iii. Lead CC and CC2 to obtain the raft from row 2 overhead bin
 - iv. Lead CC Tie the lanyard to door assist handle
 - v. CC2 assess and if safe open the exit 1L/1R whichever is more safe
 - vi. Lead CC and CC2 get the raft and throw as far as possible
 - vii. Before throwing the raft out for inflation, CC to detach the slide
 - viii. If raft does not inflate, CC2 to pull the lanyard further to activate the raft inflation
 - ix. Direct passengers to leave the AC and only inflate the vest when outside
 - x. Direct passenger to board the raft and help others
12. Onboard Life Raft Duties:
- a. Ensure all shoes and sharp items are removed
 - b. All CCs to enter the raft to balance the raft
 - c. CC4 to command all passengers to remove shoes/sharp items
 - d. CC2 to cut the mooring line using the cutting knife
 - e. CC3 retrieve survival kit
 - f. CC3 and CC4 to set up canopy; get three rods each
 - g. CC2 get one rod and set up canopy
 - h. CC 2 get ELT and activate
 - i. Lead gets one rod and center rod extender
 - j. Lead gets signaling devices and make sure you have the sea dye and flare
13. After setup is complete:
- a. CC3 to do headcount
 - b. All CCs to help covering the raft
 - c. CC4 to retrieve CCK items and provide first aid to injured
 - d. Calm occupants
 - e. Secure and use signaling devices as needed
 - f. If the crewmembers are not assigned to the door/window exits, they should get out the aircraft and board the raft and help the others
 - g. One raft may be overloaded with one extra person, they may transfer to another raft ONLY after all rafts have been gathered together and well away from the sinking aircraft



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8 SURVIVAL AND EMERGENCY EQUIPMENT

8.3 EMERGENCY LOCATOR TRANSMITTER

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8.3 EMERGENCY LOCATOR TRANSMITTER

8.3.1 Fixed Emergency Locator Transmitter

7. The Aircraft are equipped with a fixed Emergency Locator Transmitter (ELT)
8. The Emergency Locator Transmitter (ELT) assists in the location of the airplane during search and rescue operations
9. The ELT may be manually or automatically activated. In both cases, a red-light flash on the cockpit panel to indicate the ELT's activation. Manual activation may be performed when any switch is set to the ON position

Controls and Indicators:

The ELT is located in the tail section of the aircraft, and the controls are located in the flight deck.

Pre-Flight Check:

Conducted by flight crew

The control switch has two positions:

10. ON: Activates the ELT
11. ARM: Allows the ELT to be automatically activated

NOTE: The TEST/RESET function is provided by pressing ON, waiting 1 second and then pressing ARM.

RESET function allows ELT deactivating, after a manual or automatic activation.

During TEST/RESET function, the ELT alert light flashes to indicate that the system is transmitting.

8.3.2 Portable Emergency Locator Transmitter (in N807XA)

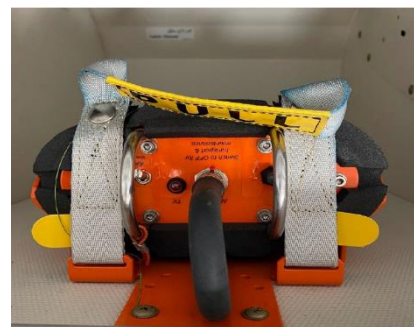
12. N807XA AC is equipped with 2 portable Emergency Locator Transmitter (ELT).

Preflight Check:

13. Amount
14. Secure
15. Toggle is in ARMED position
16. Antennae present and stowed properly
17. Red flashing light

Amount and Location:

18. One in overhead bin first row AC L overhead bin
19. One in overhead bin 13th row AC R overhead bin





OPERATIONS MANUAL PART B – (OMB)

8 SURVIVAL AND EMERGENCY EQUIPMENT
8.4 SURVIVAL KITS

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8.4 SURVIVAL KITS

1. Survival Kit Contents:
 - a. 1 Aerial Flares
 - b. 1 Age Limited Kit (container/case which holds the first aid contents)
 - c. 1 Bailing Bucket
 - d. 1 Basic Module (container/case which holds the survival/first aid kit contents for the life raft)
 - e. 6 Canopy Rods
 - f. 1 Canopy
 - g. 1 Flashlight Assemblies
 - h. 1 Life Raft Survival Manual
 - i. 1 Hand Pump with adapter
 - j. 1 Raft Repair Kits
 - k. 1 Rod Extender
 - l. 1 Sea Dye Marker
 - m. 1 Signal Mirror
 - n. 1 Sponge
 - o. 1 Utility Knife
 - p. 12 Drinking Water Pouches
 - q. 1 Whistle
 - r. 1 Portable Emergency Locator Transmitter.



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8 SURVIVAL AND EMERGENCY EQUIPMENT

8.5 EMERGENCY OXYGEN EQUIPMENT

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8.5 EMERGENCY OXYGEN EQUIPMENT

8.5.1 Portable Oxygen Bottle

GACAR §91.223, §121.509

The portable oxygen bottle provides oxygen for the following purposes:

20. Cabin crew post-decompression use.
21. Crew and passengers' therapeutic use.

Preflight Check:

22. Amount
23. Secure
24. Carry strap attached
25. mask attached to HI flow outlet
26. Between 1750 to 1800 PSI
27. Last inspection date

If used inflight, do not allow the pressure to drop below 500 PSI; change bottle if necessary to continue medical treatment. In the event of decompression, this reserve oxygen supply (500 PSI) is required for post decompression use by CCs.

When administering oxygen to an infant, flow rate should be 2L per minute (low flow). When administering oxygen to a child or adult, flow rate should be 4L per minute (high flow).

NOTE: all Cabin Crew shall immediately be re-enforcing 'no smoking' if and when oxygen is being administered for first aid passenger(s) are well as if and when oxygen masks drop from overhead panel in case of a decompression.

AGE	FLOW RATE (OUTLET)	DURATION
Infant	Low flow 2L per minute	Up to 60 minutes
Child and Adult	Hi flow 4L per minute	Up to 30 minutes

How to use POB:

28. Enforce no smoking by announcing and observing at all times
29. Inform the flight deck.
30. Obtain bottle from stowage. Ensure mask is attached to the correct outlet.
31. Secure the bottle on you using the carry strap and re-check PSI.

Oxygen Administration to Crew/Passengers:

32. Remove grease/makeup from face
33. Turn bottle to fully on



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8 SURVIVAL AND EMERGENCY EQUIPMENT 8.5 EMERGENCY OXYGEN EQUIPMENT

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34. Check mask assembly check that oxygen is flowing (pinch the bag)
35. Place the mask over nose and mouth secure mask with elastic bands by pulling the elastics
36. Secure the bottle under the seat and ensure the gauge is visible
37. If possible, monitor the casualty or delegate the responsibility to another passenger to monitor the casualty and the PSI
38. Oxygen system masks are one type drop down and portable bottles for cabin crew and passengers
39. Keep the flight deck informed of the situation. Request EMS if necessary
40. When PSI reaches 500 or landing is imminent, remove the mask and turn off the bottle
41. Place the bottle back into its stowage
42. Place the used mask into an airsick bag and mark "USED"
43. Inform flight deck of the situation and advise oxygen administration has been complete

Components:

44. Pressure gauge, 1,750 to 1,800 PSI
45. 2 outlets (HI 4L) and (LO 2L)
46. 2 masks
47. Shut-off valve
48. Carry strap

How to Attach/Detach Mask:

49. Plug the mask in to the appropriate outlet
50. Push and turn the plug clockwise
51. Push and turn counterclockwise and pull out to detach

Amount and Location:

52. Two POBs in the front closet AC left at 1L station
53. Two POBs behind last row of seats AC right

NOTE 1: When the AC is parked in cold weather for an extended period of time, oxygen condenses, and PSI may be showing lower PSI. Allow few minutes for the bottle to warm up and PSI may return to its original PSI.

NOTE 2: Individual passengers are prohibited to carry their own medical oxygen. The Company operations will not permit the use of oxygen bottles except what is carried onboard. Exception is made during air ambulance operations.



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8 SURVIVAL AND EMERGENCY EQUIPMENT

8.5 EMERGENCY OXYGEN EQUIPMENT

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8.5.3 Protective Breathing Equipment (PBE) – Scott

GACAR §121.1185

The PBE is a hood device used to protect crewmembers from the effects of smoke, carbon dioxide or harmful gases, and oxygen deficiency while attempting to locate and/or extinguish an inflight fire.

The hood completely encloses the head and seals at the neck area with a thin elastic band. Shroud extends downward from the neck area to protect the user from direct flame contact.

Duration of the chemically supplied oxygen system is approximately **15 minutes**.

Limitations:

- 54. Be aware that this device does not provide full body protection
- 55. The user must be cognizant of an inherent sense of invincibility while wearing the hood

Pre-flight Check:

- 56. Correct stowage & quantity
- 57. Check validity
- 58. Humidity Indicator is **BLUE** that is visible from a small clear window
- 59. Last inspection date (if applicable)



Amount and Location:

- 60. Two under FWD CC station
- 61. Two under AFT AC left CC station
- 62. One in the flight deck behind PIC

Amount and Location N807XA:

- 63. Two under FWD CC station
- 64. Two above CC station L
- 65. Two above CC station R
- 66. One in the flight deck behind PIC

Operation:

- 67. Remove unit from case
- 68. Tear off red pull strip and remove unit from bag
- 69. Pull out actuation ring. Do not use unless you hear gas flow
- 70. Bend forward, grasp hole in neck seal with thumbs, insert chin into hole and pull hood across face and overhead



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8 SURVIVAL AND EMERGENCY EQUIPMENT

8.5 EMERGENCY OXYGEN EQUIPMENT

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71. Pull hood down until headband firmly engages forehead. Remove all hair and clothing between neck and seal. Using fingers, be certain neck seal makes firm contact completely around neck
72. Normal operation causes gas flow noise inside the hood. When noise stops, immediately move to a non-hazardous area, and remove hood



After Use:

The used PBE should be placed in a metal container for the duration of the flight.

At the completion of the flight, the PBE must be handed over to maintenance for an authorized disposal.



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8 SURVIVAL AND EMERGENCY EQUIPMENT
8.6 FIRE EXTINGUISHERS

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8.6 FIRE EXTINGUISHERS

8.6.1 Halon 1211 Fire Extinguisher

GACAR §91.303, §121.143, PART 121 Appendix G (b) (10)

1. Liquid gas agent which vaporizes on release and extinguishes fire
2. The Halon fire extinguisher is effective on all types of fires. It is most effective on electrical, fuel, oil, grease, etc
3. It is most effective in reaching sources of fire even in hard-to-reach locations such as behind a panel or an obstruction
4. Halon extinguishes the fire as it smothers and chemically prevents the oxygen in the air from being used by the fire
5. Halon vapor reduces the possibility of flash back (fire restarting)

Duration: 8 to 12 seconds.

Pre-Flight Check:

1. Correct stowage and quantity;

NOTE: If the Halon Extinguisher found to be re-located in another location during the preflight check, LCC shall inform the PIC immediately.

2. The safety pin is inserted between the lever and the handle. A plastic strip is secured through the safety pin, around the lever and the handle;

NOTE: If plastic strip is missing, report it to the PIC immediately.

3. The pressure gauge needle is in the **GREEN** zone.

Halon 1211 may work on all 4 classes of fire:

1. **Class A:** Combustible materials (wood, paper, plastic, etc.)
2. **Class B:** Rechargeable lithium batteries (iPhones, etc)
3. **Class C:** Electrical
4. **Class D:** Class D fires are non-rechargeable lithium batteries such as ELT in aircraft, etc

Weight: 3.5 lb (1.6 kg).

Range: 8 to 12 feet (3.5 meters).

NOTE: When almost empty, a hissing sound will be heard. This shall alert the user that the extinguisher is getting empty and backup extinguisher may be needed.



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Operation:

5. Release from brackets.
6. Twist the pin and pull.
7. Hold extinguisher upright and aim the hose at the base of the fire.
8. Squeeze the handle to discharge the extinguisher.
9. As you move closer towards the fire, move the hose from side to side in a sweeping motion.
10. Aim at base of fire.

After Use:

11. Place the unit back into its stowage.
12. Tag extinguisher as used.
13. Advise PIC.



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8.6.2 Water (H₂O) Extinguisher

This extinguisher may be used on burning materials such as paper, cardboard, fabric, wood, plastics, rug, luggage and clothing fires.

1. It extinguishes the fire by reducing the temperature
2. It can be used for dampening down after a fire has been extinguished by using a HALON extinguisher
3. It comprises of water and anti-freeze propelled by a carbon dioxide (CO₂) cartridge. Twisting the cartridge holder in a clockwise direction (to the right) causes the carbon dioxide cartridge to be punctured by a piercing pin assembly, releasing the charge of carbon dioxide, which pressurizes the extinguishing agent

Duration: approximately **30 seconds**.

Pre-Flight Check:

4. Correct stowage and quantity

NOTE: If the water extinguisher is found to be re-located in another location during the preflight check, LCC shall inform the PIC immediately.

5. Check the wire is inserted through the upper part of the neck, the rim of the handle is not broken, and it is secured with a lead seal
6. Look through the hole in the handle to ensure the presence of the CO₂ cartridge

Operation:

7. Remove from brackets
8. Twist handle clockwise completely to break wire seal/puncture CO₂ cartridge
9. Hold extinguisher upright and aim at base of the flame
10. Depress lever and discharge extinguisher using a sweeping motion
11. Stand as close to the fire as safely possible; attempt to move closer as the fire is reduced
12. Range: 10 ft
13. Used on class "A" fire or lithium batteries to prevent thermal runaway

Amount and Location:

14. 1 in the closet AC facing 1L station
15. 1 above AFT Jump seat aircraft L.



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8.6.3 Lavatory Fixed Fire Extinguisher

Halon 1211 is a liquefied gas that works by disrupting the chemical reaction occurring during a fire. It does not freeze, stain fabric, or cause cold burn or corrosion.

This extinguisher is an automatic fixed Halon 1211 fire extinguisher, and it is heat sensitive. When the temperature exceeds 80°C, the extinguisher will discharge all of its contents into the lavatory waste bin.

When 1211 is discharged in the waste bin, the embers should be cooled with non-flammable liquid (e.g., soft drink, coffee, hot/cold water, Juice).

Duration: 5 seconds.

Preflight Check: Inspected by maintenance.

Amount and Location:

1 extinguisher located above the waste bin, one above each LAV. waste bin.



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8.7 CRASH AXE

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8.7 CRASH AXE

The crash axe is used for firefighting, as a survival tool, and for clearing debris around the exit. The sharp end of the crash axe may be used to pry panels away from the fuselage so that a fire extinguisher may be inserted and deployed to fight a fire. The other end may be used as a survival tool. For your added protection, the handle of the axe is insulated with dolomite rubber handgrips.

Extreme caution should be taken when using the crash axe to cut away aircraft panels, as there may be electrical lines behind them. It will primarily be operated by a member of the flight deck unless the CC is instructed to utilize by the PIC.

Preflight Check:

16. Amount
17. Secure

Amount and Location:

18. One Crash Axe and It is located in the flight deck behind the PIC seat. It is secured in brackets and by snaps



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8.8 EMERGENCY FLASHLIGHT

1. The flashlight is provided to assist in carrying out evacuations (i.e., dense smoke or dark environment)
2. These flashlights must be operable at all times
3. The flashlight can be activated manually when it is removed from the retention bracket through a slide switch located on the flashlight body

Duration: **Two hours.**

Pre-Flight Check:

4. Amount
5. Secure in bracket and that charges the flashlight while not in use
6. DME type: Red light flashes once every 8 sec
7. Operable (White and bright in color)

To use in smoke filled cabin:

8. Crouch down
9. Hold flashlight at eye level
10. Aim without movement

The EFL may be used in a night evacuation, but not required. It is a great piece of equipment to take off the aircraft for future use, until help arrives:

11. Hold at eye height
12. Move in a sweeping motion to prevent vision impairment



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8 SURVIVAL AND EMERGENCY EQUIPMENT
8.9 MEGAPHONE

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8.9 MEGAPHONE

GACAR §91.221

1. Megaphone is carried to accommodate operational regulation. When the PA becomes unserviceable the aircraft may be dispatch provided the aircraft is fitted with a serviceable megaphone and the Interphone is serviceable.
2. When Megaphone becomes unserviceable and PA is unserviceable, one of the two must be repaired before the flight. There is no MEL relief for both unserviceable PA and Megaphone.
3. When Megaphone is discovered to be unserviceable, inform the PIC.

Preflight Check:

4. Amount
5. Secure
6. Operable
7. Ensure strap is attached and not frayed

Purpose:

8. One being a replacement for an unserviceable PA system
9. This equipment may also be used post evacuation for crowd control

How to use:

10. Take it out of the stowage bin
11. Ensure the volume is set to an appropriate level
12. Hold the microphone against your mouth
13. Push the trigger button to talk
14. When finished addressing, release the button

Amount and Location:

15. One in the FWD closet AC right at 1R station
16. One located behind the last row of seats AC left.



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8.10 MEDICAL KIT, FIRST AID KIT, UNIVERSAL PRECAUTION KIT

8.10.1 Emergency Medical Kit in the Flight Deck

1. General
 - a. Based on Appendix B to GACAR part 91 medical kit, airplane having more than 20 seats, at least one medical kit should be placed and be equipped onboard the aircraft
 - b. Location and contents of medical supplies
2. Amount and Location: One/Flight deck, behind the PIC seat
3. Content: As per GACAR 91 Appendix B list
4. Preflight Check:
 - a. Amount
 - b. Secured
 - c. Sealed
 - d. Last inspection/expiration date
5. Location
 - a. Kits should be distributed as evenly as practicable throughout the passenger cabin. They must be readily accessible to crew members
 - b. The medical kit, when carried, must be stored in an appropriate secured location to prevent unauthorized entry or use
 - c. Medical supplies must be stored in a manner to keep them free from dust, moisture, humidity and damaging temperatures
 - d. Use of this kit is strictly prohibited to anyone who is not a certified medical care giver. Medical kit is only used when it is advised by licensed medical doctor, only then the kit is brought and used as applicable to the medical need
6. Medical Kit content
 - a. Equipment
 - i. List of contents
 - ii. Stethoscope
 - iii. Sphygmomanometer (electrical preferred)
 - iv. Airways, oropharyngeal (three sizes)
 - v. Syringes (appropriate range of sizes)
 - vi. Needles (appropriate range of sizes)



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- vii. Intravenous catheters (appropriate range of sizes)
 - viii. Antiseptic wipes
 - ix. Gloves (disposable)
 - x. Needle disposable box
 - xi. Urinary catheter
 - xii. System for delivering intravenous fluids: including alcohol sponges and tape scissors
 - xiii. Venous tourniquet
 - xiv. Sponge gauze
 - xv. Tape adhesive
 - xvi. Surgical mask
 - xvii. Emergency tracheal catheter (or large gauge intravenous cannula)
 - xviii. Umbilical cord clamp
 - xix. Thermometers (nonmercury)
 - xx. Basic life support cards
 - xxi. Bag valve mask
 - xxii. Flashlight and batteries
 - xxiii. Cardiopulmonary resuscitation (3 sizes)
 - xxiv. Saline solution: 500 cc
 - xxv. Self-inflating manual resuscitation device with three masks
- b. Medication
- i. Epinephrine 1:1 000
 - ii. Antihistamine: injectable and tablets – 25 mg
 - iii. Dextrose 50% (or equivalent) injectable 50 ml
 - iv. Nitroglycerin tablets, or spray
 - v. Major analgesic
 - vi. Sedative anticonvulsant: injectable
 - vii. Antiemetic: injectable



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8.10 MEDICAL KIT, FIRST AID KIT, UNIVERSAL PRECAUTION KIT

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8.10.2 First Aid Kit

GACAR §91. Appendix B-1

1. First Aid Kit is a kit that contains most essential items to treat a wound until further treatment is available. For content, see the FAK checklist inside the kit. The content is as follows for aircraft seating more than 20 seats.
2. Amount and Location:
 - a. Three first aid Kits
 - b. Two at FWD emergency equipment closet at 1R door AC right
 - c. One located behind last row of seats AC left

3. After Use:

CCs must enter all necessary information into the QSMS report for restocking. CCs inform Maintenance Department upon arrival at home base to ensure the first aid kit is restocked and released.

4. Preflight Check:
 - a. Amount
 - b. Secure
 - c. Sealed
 - d. Stocked (If the seal is broken, open the kit and check against content list in the kit.)
 - e. Expiration date
5. First Aid Kit Contents:



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First Aid Kit (FAK) Contents

Required Items	Quantity
Adhesive bandage compresses, 1 inch	16
Antiseptic swabs, 10 MM 20	20
Ammonia inhalants, 6 MM	10
Bandage compresses, 4-inch	8
Triangular bandage compresses, 40-inch	5
Arm splint, non-inflatable	1
Leg splint, non-inflatable	1
Roller bandage, 4-inch	4
Adhesive tape, 1-inch roll	2
Bandage scissors	1
Protective Latex/Non-permeable gloves	1 pair

8.10.3 Universal Precaution Kit (UPK)

A UPK is provided on board all aircraft to be used by Cabin Crew members in cleaning up any biological liquid spill on the aircraft caused by any person.

Location of the UPK can be found next to the Doctor Emergency Kit.

PRE-FLIGHT CHECK

1. Correct stowage and quantity
2. Sealed, not damaged

NOTE: The LCC is responsible for ensuring that the required number of UPKs are available on board and ready for use.

OPERATION

1. Put on gloves, apron and face mask
2. Sprinkle the absorbent powder evenly over the spill. (*the spill will thicken into a gel state*)
3. After 1 minute, use the handle scraper to scoop the contaminated gel into the scoop bag and seal the bag
4. Wipe the affected area thoroughly with the surface cleaner towelette
5. Wipe the area clean with the absorbent towels
6. Remove gloves, apron and face mask
7. Clean your hands with the antiseptic towelette



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8. Place all used and contaminated items in the biohazard bag and tie secure

More information regarding scene safety and managing clinical waste can be found in Section 7 First Aid.

CONTENTS

The following is a list of the contents of the UPK:

1. Dry powder that converts small liquid spills into gel
2. Germicidal disinfectant for surface clearing
3. Skip wipes for postmortem care
4. Face mask
5. Disposable gloves
6. Protective apron
7. Large absorbent towels
8. Pick up scoop with scraper
9. Biohazard scoop bag with handle scraper
10. Instruction pamphlet.



8.11 EMERGENCY EXIT LIGHTING

8.11.1 Emergency Lighting

1. The aircraft is equipped with floor path photo luminescent lighting as well as an EMRG lighting system. These lights are in place to assist crew and passengers in an evacuation. The system has 20 minutes duration and runs independently from the aircraft's power.
2. ELS is set to ARM position prior to each flight by the flight crew, and it will activate upon aircraft power loss. In addition, an alternate ELS switch is operated by the CC, and it is located above the aft CC Interphone by door 2L. The switch is guarded with a clear plastic cover. CC3 is responsible to activate in an Emergency.
3. Components have been strategically placed in the cabin and exterior so that some form of lighting is effective to provide guidance and assistance to passengers attempting to find an exit even under dense smoke conditions or at night during an evacuation.

8.11.2 Master Control Switch

1. The emergency lights are controlled by means of the master control switch which is located in the flightdeck. This switch has 3 positions:

Table 8.11.2-1 – Master Control Switch

Control	Description
OFF	Self-explanatory.
ON	Emergency lights are selected to ON.
ARM	When in this position, if the aircraft suffers a loss of ground power or engine power, the emergency lights will automatically activate. Power is provided by an emergency battery and will provide enough power to provide lighting for approximately 20 minutes.

8.11.3 Alternate Control Switch

1. In the event that the ARM system fails, there is an ALT light switch which is located in the AFT galley above CC jump seat. CC3 is responsible for activation if there is a failure.

Table 8.11.3-1– Alternate Control Switch

Control	Description
ARM	Always in this position for ARM flight
ON	Used in an EMRG if lights do not activate automatically.



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2. How to use:
 - a. Lift the clear plastic cover
 - b. Press button once
 - c. Light will activate
3. Preflight Check
 - a. Switch is covered and in ARM position with green light.
 - b. Turn ELS ON/OFF
4. To test the system, just press and hold the TEST push button and check the cabin lights.

8.11.4 Types and Locations of Emergency Lights

1. The emergency lighting system is designed to provide adequate illumination to assure a safe and rapid evacuation of crewmembers and passengers.
2. Emergency lighting consists of internal and external lights. The system is comprised of:
 - a. Cabin/cockpit emergency lights
 - b. Passageway lights
 - c. Exit locator signs
 - d. Exit marker signs
 - e. Exit identifier signs
 - f. Exterior emergency lights
3. The Emergency Lighting System shall be checked daily in order to verify proper functioning of the system components. Test can be initiated either from the forward CC Panel by pressing the Emergency Lights test switch or from the cockpit ELS switch by selecting it to the ON position.
4. The proper function of all emergency lights and emergency exit signs shall be checked visually.

8.11.5 Photo Luminescent Strips

1. Passageway emergency lights are photo-luminescent strips that are charged prior to the first flight of the day by means of the interior cabin lighting.
2. Luminescence time is not limited if during flight either daylight or cabin lighting exist in the cabin.
3. Photo-luminescent strips are installed along the passenger cabin floor to provide means of identifying the emergency escape path even in dense smoke conditions.
4. For 15 minutes of ceiling and entrance cabin lighting exposure in BRIGHT mode the strip luminescence will be available for several hours.



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8.11 EMERGENCY EXIT LIGHTING

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8.11.7 Exterior Emergency Light

1. External emergency lighting is provided by each of the escape slides located at each of the four doors of the airplane.

NOTE: The flight deck has an additional switch to activate the emergency egress lights. The PIC is responsible for operation of this switch.

8.11.8 Emergency Lighting System

1. Located at the AFT CC panel, the emergency light switch will activate all emergency lights at the exit areas, related signs and seat mounted escape path lighting. The emergency lighting system will activate automatically when aircraft power is lost, engines shut down or activated by pressing the emergency light switch button. CC3 is responsible for the operation of the switch.

NOTE: The flight deck has an additional switch to activate the emergency egress lights. The PIC is responsible for operation of this switch.



8.12 EVACUATION SLIDES AND SLIDE RAFTS

8.12.1 Evacuation Devices Overview

1. The B737 is equipped with four automatic inflation slides designed to assist all occupants in a rapid egress from the aircraft in an emergency. Each slide is equipped with a manual back-up inflation system.
2. The slide is equipped with an inflation cylinder and lanyard. Inflation is initiated when the door is opened with the slide, attached to the floor brackets, becomes separated from the door bustle and drops, providing sufficient tension to the inflation lanyard causing the cylinder to release air pressure into the slide, inflating the evacuation device.

8.12.2 Slides

1. Slides are located at the left and right, forward and rear entry doors. When inflated on land, the slide serves as a single lane escape slide. The slide is not designed to be a raft when inflated in water yet may be used as a flotation device in an unplanned water landing. The slides are constructed of a nonflammable rubberized material and rectangular in shape.
2. All slides feature the following:
 - a. Red manual inflation handle on the girt strip
 - b. Quick detach handle to release the slide in an unplanned water landing
 - c. Handholds on the sides of the slide
3. Inflation: Automatic inflation occurs when a main cabin door is opened completely with the door armed.

8.12.3 Evacuation Slides Deployed

When the evacuation slides are deployed under any conditions, (aircraft is level) the slide will reach the ground and be at an acceptable angle for usage. Should the aircraft be in an unusual attitude (e.g., nose up or one wing down) the usability of the elevated slide must be rapidly assessed by the CCs and a decision made whether the evacuation route is usable or the need to redirect exits.



9. EMERGENCY EVACUATION PROCEDURES

GACAR §121.761, §121.213, §121.143

In the event of an emergency situation that requires the evacuation of an aircraft, it is essential that all Mukamalah Aviation employees, particularly flight crew and cabin crew, are well-prepared and trained to execute the appropriate procedures. The safe and efficient evacuation of passengers and crew is of utmost importance and requires a coordinated effort from all involved personnel.

This chapter outlines the emergency evacuation procedures to be followed by Mukamalah Aviation flight crew inline with the procedures established OM-E chapter 4. It covers the various types of emergencies that may necessitate an evacuation, the roles and responsibilities of each crew member, and the specific steps to be taken to ensure the safety of all individuals onboard.

9.1 EVACUATION COMMAND

GACAR §121.143

Refer to OM-E 4.5.1.

If an emergency evacuation is necessary and unless the situation is clearly life threatening (catastrophic), the PIC will normally give the evacuation command via the PA system and/or the evacuation alarm system.

After the aircraft comes to a complete stop after any type of emergency, time may elapse before the flight deck crew are able to communicate with the Cabin Crew, as they maybe completing any drills and assessing the situation.

To initiate evacuation, the PIC will announce:

“EVACUATE, EVACUATE, EVACUATE”

and/or

EVACUATION ALARM

If an evacuation alarm is not available and the PA system has failed, the evacuation may be initiated by megaphone or other voice commands.

In the event that the evacuation is cancelled, the PIC shall instruct crew through the call:

“ATTENTION CREW, AWAIT INSTRUCTIONS”

All Cabin Crew members should remain seated and await instructions from the PIC.



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9 EMERGENCY EVACUATION PROCEDURES

9.2 EVACUATION RESPONSIBILITIES

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9.2 EVACUATION RESPONSIBILITIES

9.2.1 Flight Crew Responsibilities

The Captain (PIC) has the ultimate responsibility for the safety of the aircraft, passengers, and crew. In the event of an emergency requiring evacuation, the PIC shall:

1. Assess the situation and determine the need for evacuation.
2. Communicate the decision to evacuate to the cabin crew, using the prescribed phraseology: "***EVACUATE, EVACUATE, EVACUATE***" and/or activating the evacuation alarm.
3. Coordinate with the cabin crew to ensure a safe and efficient evacuation.
4. Notify ATC and request assistance from emergency services as required.
5. Oversee the post-evacuation duties, such as passenger assembly and headcount, in coordination with the cabin crew and emergency services.

The First Officer shall assist the PIC in executing the evacuation procedures, including:

1. Monitoring the aircraft systems and providing relevant information to the PIC.
2. Communicating with ATC and other external agencies as directed by the PIC.
3. Assisting with passenger control and evacuation as necessary.

9.2.2 Joint Procedures for Flight Crew and Cabin Crew

Effective communication and coordination between the flight crew and cabin crew are essential for a successful evacuation. The following joint procedures shall be adhered to:

1. The flight crew shall provide clear and timely instructions to the cabin crew regarding the evacuation decision and any specific considerations (e.g., unusable exits, fire, or smoke).
2. The cabin crew shall promptly acknowledge and execute the evacuation instructions provided by the flight crew.
3. The flight crew and cabin crew shall maintain open communication channels throughout the evacuation process, using the interphone system or alternative means if necessary.
4. The cabin crew shall keep the flight crew informed of the progress of the evacuation, including any challenges or safety concerns.
5. The flight crew and cabin crew shall work together to ensure that all passengers and crew have been safely evacuated and accounted for.
6. In the event of an incapacitation of either flight crew member, the cabin crew shall be prepared to initiate an evacuation based on their assessment of the situation and the criteria outlined in the Cabin Crew Manual (e.g., uncontrolled fire, smoke, or severe structural damage).

For cabin crew responsibilities during evacuation refer to OM-E sections 4.5 to 4.7.



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9 EMERGENCY EVACUATION PROCEDURES

9.2 EVACUATION RESPONSIBILITIES

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9.2.3 Coordination with Emergency Services

The flight crew, in consultation with the cabin crew, shall coordinate with the ground-based emergency services to ensure a safe and effective response to the evacuation. This may include:

1. Providing relevant information about the nature of the emergency, the number of passengers and crew, and any special considerations (e.g., injured or disabled passengers).
2. Directing the assembly of passengers and crew to a safe location, as advised by the emergency services.
3. Assisting the emergency services in triaging and treating any injured passengers or crew members.
4. Cooperating with the emergency services and local authorities in the post-evacuation procedures, such as passenger documentation and incident investigation.



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9.3 EVACUATION PROCEDURES

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9.3 EVACUATION PROCEDURES

9.3.1 Land Evacuation

In the event of a land evacuation, the flight crew shall follow these procedures:

1. Assess the situation and determine the need for evacuation, considering factors such as fire, smoke, structural damage, or other hazards.
2. Communicate the decision to evacuate to the cabin crew using the prescribed phraseology: "***EVACUATE, EVACUATE, EVACUATE***" and/or activating the evacuation alarm. Refer to 9.2.
3. If time permits, provide relevant information to the cabin crew regarding the nature of the emergency and any specific considerations (e.g., unusable exits, fire, or smoke).
4. Coordinate with the cabin crew to ensure a safe and efficient evacuation, maintaining open communication channels throughout the process.
5. Notify ATC and request assistance from emergency services as required.
6. If possible, assist with passenger control and evacuation as necessary, following the instructions of the cabin crew.
7. Once all passengers and crew have been evacuated, coordinate with the cabin crew and emergency services to conduct a headcount and ensure everyone is accounted for.
8. Oversee the post-evacuation duties, such as passenger assembly and coordination with emergency services, in consultation with the cabin crew.

9.3.2 Water Evacuation (Ditching)

In the event of a planned or unplanned ditching, the flight crew shall adhere to the following procedures:

1. Assess the situation and determine the need for ditching, considering factors such as engine failure, fuel exhaustion, or other critical system malfunctions.
2. If time permits, communicate the intention to ditch to the cabin crew and provide them with relevant information, such as the expected time to impact and any specific instructions.
3. If an immediate ditching is required, announce "***BRACE FOR IMPACT***" over the PA system to alert the cabin crew and passengers.
4. After the aircraft has come to a stop, assess the situation and determine if an evacuation is necessary. If so, communicate the decision to evacuate to the cabin crew using the prescribed phraseology: "***EVACUATE, EVACUATE, EVACUATE***" and/or activating the evacuation alarm.
5. Coordinate with the cabin crew to ensure a safe and efficient evacuation, maintaining open communication channels throughout the process.
6. Assist with the deployment of life rafts and slide rafts, if applicable, following the instructions provided in the Aircraft Type Specific Section.
7. Ensure that the flight crew has evacuated the aircraft, with the assistance of the cabin crew members in the vicinity of the flight deck.



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9 EMERGENCY EVACUATION PROCEDURES

9.3 EVACUATION PROCEDURES

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8. Once all passengers and crew have been evacuated, coordinate with the cabin crew to conduct a headcount and ensure everyone is accounted for.
9. Oversee the post-evacuation duties, such as passenger assembly, distribution of survival equipment, and coordination with emergency services, in consultation with the cabin crew.
10. Notify ATC and request assistance from emergency services as required, providing relevant information about the nature of the emergency, the number of passengers and crew, and any special considerations.

Throughout the evacuation process, the flight crew shall maintain effective communication and coordination with the cabin crew, as outlined in the joint procedures in section 9.2.2. The flight crew shall also be prepared to assist the cabin crew in executing their duties, such as passenger briefings, life vest demonstrations, and crowd control, if necessary.



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9 EMERGENCY EVACUATION PROCEDURES

9.4 POST-EVACUATION PROCEDURES

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9.4 POST-EVACUATION PROCEDURES

Once all passengers have been evacuated, they must be directed 50 to 100 meters upwind and assembled in groups well away from the aircraft in a protected area. The megaphone may be used to assist in crowd control. A head count must be carried out and first aid offered where possible and practical.

1. No smoking must be enforced and the crew must try to remain in control until the Rescue Services take over;
2. The PIC will coordinate with Rescue Personnel/LCC to ensure maximum safety of passengers and crew;
3. Do not disturb any wreckage or allow anyone to do so except to remove the injured;
4. Do not make any statements;
5. Do not discuss anything about insurance or admit liabilities.



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9 EMERGENCY EVACUATION PROCEDURES

9.5 EVACUATION DRILLS AND TRAINING

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9.5 EVACUATION DRILLS AND TRAINING

Initial and recurrent training programs for flight crew members include comprehensive instruction on emergency evacuation and ditching procedures. The training curriculum for flight crew is detailed in Section 3.19.6 of the Operations Manual Part D (OM-D).

Emphasis shall be placed on effective communication and coordination between the flight crew and cabin crew during emergency situations, as outlined in the joint procedures in section 9.2.2.



OPERATIONS MANUAL PART B – (OMB)

10	AIRCRAFT SYSTEMS
9.5	EVACUATION DRILLS AND TRAINING

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10. AIRCRAFT SYSTEMS

Refer to FCOM System Description.

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