مكاملة
Mukamalah

OPERATIONS MANUAL PART D – (OMD)

Issue / Revision / Date

01 / 00 / 21-Mar-24

Document No.

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

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 February 20, 2024.
4. This manual becomes “uncontrolled” when printed.

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General Authority of Civil Aviation

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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 Operations
3. Responsibility: Manual content and implementation.

Document Number:	MAC -FLT-121U-OMD-M-1/0
Title:	MANUAL TITLE
Issue / Revision:	01 / 00

Prepared by:		Date:
Title:		
Signature:		

Reviewed by:		Date:
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Approved by:		Date:
Title:		
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0.3 TABLE OF CONTENTS

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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 FEB. 2024	N/A – Initial Release	NA

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0.5 RECORD OF NORMAL REVISIONS

Issue	Rev	Rev Date	Inserted By	Insert Date / Sign
00	00	XX FEB. 2024	N/A – Initial Release	NA

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0.6 RECORD OF TEMPORARY REVISIONS

Temporary Revision No.	Section No.	Page No.	Change Highlights	Effective Date

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0.7 LIST OF EFFECTIVE PAGES

Issue	Sec-Page	Rev / Date

Issue	Sec-Page	Rev / Date

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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.

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0.9 DOCUMENT STRUCTURE AND HIERARCHY

0.9.1 Preface

This manual is issued is 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 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.

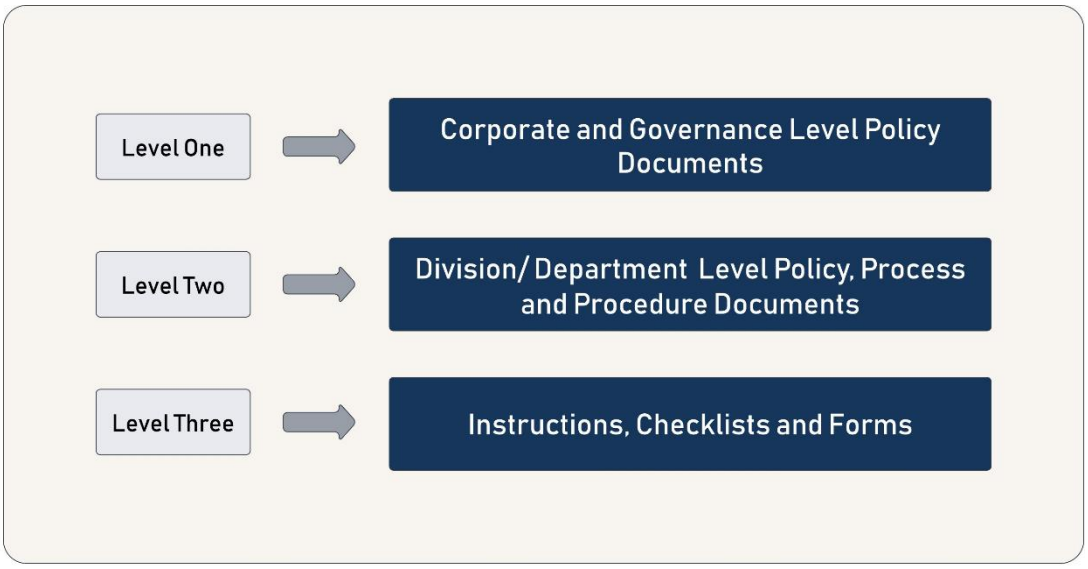

Figure 1 – MAC Publication Hierarchy

0.9.3 Manual Owner

Refer to CPM section 2.4.6.1.1

0.9.4 Document Format and Style Guide

Refer to CPM section 2.6.2

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

0.11.1 Abbreviations and Acronyms

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0.11.2 Definitions

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0.12 USE OF PROCEDURAL WORDS

Refer to CPM section 2.3

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1. ORGANIZATION AND RESPONSIBILITIES

1.1 FLIGHT OPERATIONS TRAINING DEPARTMENT

1.2 ORGANIZATION STRUCTURE

1.3 TRAINING MANAGER RESPONSIBILITY

It shall be the responsibility of the Training Manager to direct and ensure the following:

1.3.1 Regulatory Compliance

GACAR §121.5, 121.831, 121.839(a)(1/2), Part 109, Part 5 and Part 7

1. Ensure that the Mukamalah Aviation Training Policy adheres to the stipulations set forth in GACAR Part 121, specifically Subparts K, L, M, and the associated Appendices B, C, and D of Part 121. This also extends to the compliance with GACAR Part 109, Part 117, Part 5, and Part 7. These regulations outline the mandatory requirements for Mukamalah Aviation to develop and sustain an effective training program. This program is designed for the training and qualification of Flight Deck Crew, Flight Dispatchers, and Cabin Crew, covering aspects of aircraft operation, transportation of hazardous materials, Fatigue Risk Management, Safety Management System, and the Prevention and Safety Education concerning the Problematic Use of Psychoactive Substances.

1.3.2 Ground and Flight Training Facilities

GACAR§ 121.839(a)(3)

Ensure provision of adequate ground and flight training facilities and properly qualified ground instructors for the training required by this Training Policy.

1.3.3 Training Program Currency

GACAR§ 121.839(a)(4)

Provide and keep current with respect to each aircraft type and, if applicable, the particular variations within that aircraft type, appropriate training material, examinations, forms, instructions, and procedures for use in conducting the training and checks required by Part 121 operations.

1.3.4 Curriculum Requirements

GACAR§ 121.843

Prepare and keep current a written training program curriculum for each type of aircraft with respect to each crewmember and flight dispatcher required for that type aircraft.

1.3.5 Curriculum Development

GACA eBook 4.21.1.13

It shall be the responsibility of Training Manager to develop, update and maintain one or more curriculums for each category, specific duty position, and aircraft type in its fleet.

1.3.6 Training Provider Oversight and Supervision

It shall be the responsibility of Training Manager to supervise and/or oversight, Training Quality, Currency and Standardization of Training and Checking, with the Training Provider.

1.3.7 Provision of Adequate Training Personnel

GACAR§ 121.839(a)(5)

Provide enough flight instructors, simulator instructors, and approved check airmen to conduct required flight training and flight checks.

1.3.8 Approvals

1.3.8.1 Ground Training

1.3.8.1.1 Mukamalah Aviation Approval

Training department shall develop all required Ground Training Segments, Modules, Elements and Courseware used for the ground training of Mukamalah Aviation Flight Operations personnel, which training materials will be subject to the approval of Chief Pilot.

1.3.8.1.2 GACA Approval

Training Department shall coordinate with Flight Operations Department and obtain Initial and/or Final regulatory approval from GACA for all Mukamalah Aviation Flight Deck Crew, flight dispatchers, and cabin crew, ground training materials.

1.3.8.2 Flight Training

1.3.8.2.1 Mukamalah Aviation Approval

Training department shall develop all Flight Training Segments, Modules, Elements and Courseware used for the flight training of Mukamalah Aviation Flight Crew; training material will be subject to the approval of Chief Pilot.

1.3.8.2.2 GACA Approval

Training Department shall coordinate with Flight Operations Department and obtain Initial and/or Final regulatory approval from GACA for all flight training material used for the training of Mukamalah Aviation Flight Deck Crew.

1.3.8.2.3 Approval of FSTDs for Use in Training Program

GACAR § 121.855

1. Training Manager shall ensure that an FSTD used in a training course and checks under Mukamalah Aviation training program (including requalification recent experience, proficiency checks and low altitude windshear flight training (§121.859(d)) meets the requirements of Appendix D of GACAR Part 121 and is:

    a. Specifically qualified to Level C or D and approved by GACA as applicable to the type of aircraft, the variant within the type and the particular maneuver, procedure, or crew member function involved.

b. Maintained for the performance, functional, and other characteristics required for approval.

c. Changed to conform with any modification to the aircraft being simulated resulting in changes to performance, functional, or other characteristics required for approval.

d. Given a daily functional preflight check before being used; and

e. Have a daily discrepancy log kept with each discrepancy entered in that log by the appropriate instructor or check pilot at the end of each training or check flight.

1.3.8.2.4 Approval of Training Equipment Other than FSTDs

GACAR § 121.857

1. The Training Manager shall establish procedures to ensure all training equipment meets the additional specifications per 121.857(b) prior to approval and use. This includes validating that the equipment accurately replicates:

   a. The form fit, function, and mass of the aircraft equipment.

   b. Normal and abnormal operation

   c. Performance under adverse conditions and required modifications.

2. Detailed record-keeping protocols shall be implemented per 121.857(d) for discrepancy logs, including timely documentation of any deficiencies discovered, date of correction, and maintenance of records for at least 60 days.

   a. Training equipment discrepancy records shall be readily accessible and reviewed prior to use.

   b. All discrepancies discovered shall be logged with description and date. Corrections made shall be documented with repair date.

   c. Discrepancy records shall be retained for minimum 60 days to ensure full regulatory compliance.

3. No training equipment shall be used if any component is missing, malfunctioning, or inoperative that is required for the crew member training/checking tasks. These procedures shall be strictly followed to ascertain full regulatory compliance, mitigate risks, and uphold Mukamalah Aviation 's uncompromising standards for safety and training quality.

4. Training Manager shall ensure that all training equipment used in a Mukamalah Aviation training program is approved by GACA and functionally replicates respective aircraft equipment for crew member duty or procedure and meets all the specifications and maintenance requirement of the regulation.

1.3.8.3 Line Training

1.3.8.3.1 Mukamalah Aviation Approval

Training department shall develop all Line Training Segment (Operating Experience), Modules, Elements and Courseware used for the Line training of Mukamalah Aviation Flight Deck Crew, training material will be subject to the approval of Chief Pilot.

1.3.8.3.2 GACA Approval

Training department shall coordinate and obtain regulatory approval from GACA for line training material used for the training of Mukamalah Aviation Flight Deck Crew.

1.3.9 Certification Of Completion

GACAR§ 121.839(d)

Ensure each Instructor/Check airman who is responsible for any segment of Flight/ Ground training or Flight and Competence checks under this part shall certify as to the proficiency and knowledge of the Flight Deck Crew, Flight Dispatcher, Cabin Crew, Flight Instructor or Check Airman on completion of that segment of training or check.

This certification must be made as a part of the crew member's or aircraft dispatcher's record.

1.3.10 Additional Training Provision

GACAR 121.879 (g)

1. In addition to initial, transition, upgrade, recurrent, and differences training, each training program shall provide ground and flight training, instruction, and practice as necessary to ensure each crew member and aircraft dispatcher:
    a. Remains adequately trained and currently proficient for each aircraft, crew member position, and type of operation in which he serves and
    b. Qualifies in new equipment, facilities, procedures, and techniques, including modifications to the Aircraft or introduction of a new specific operation type.
2. The additional training as required above shall be provided as and when needed with the introduction of:
    a. New policies, rules, instructions and procedures;
    b. New aerodromes and routes or specific operation type.
    c. New aircraft types or variants,
    d. New systems and fleet modifications/upgrades.
3. The training methods shall be consistent with the level of change being introduced. Accordingly training on certain new policy and procedures may be provided to each crew member and aircraft dispatcher through self-review of an information or training bulletin while introduction of a new

system or upgrade may need classroom/CBT or Simulator training as necessary. Training Manager shall ensure appropriate coordination between Training Department, Flight Operations Department, Training Scheduling and Training Service Provider to conduct any additional training in timely manner as required.

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2. TRAINING PROGRAM

GACAR § 121.839, 121.851, 109

1. Mukamalah Aviation shall establish, implement, and maintain a comprehensive training program that fully satisfies the requirements outlined in GACAR §121.839. This covers initial, recurrent, and specialized training for all crew members, aircraft dispatchers, instructors, check pilots, and other operations personnel.
2. The key objectives of Mukamalah Aviation's training program are:
    a. Ensuring all employees are adequately trained and qualified to perform assigned duties. This includes providing robust ground and flight training facilities with qualified instructors.
    b. Maintaining up-to-date training materials, examinations, forms, instructions, and procedures tailored to each aircraft type operated.
    c. Employing enough qualified flight instructors, simulator instructors, and check pilots to conduct required training and evaluations.
    d. Obtaining initial and final GACA approval of the training program per §121.851 before implementation.
    e. Tracking training completion dates and instructor certifications.
    f. Incorporating airman certification training per GACAR Part 61 and 65 as applicable.
    g. Complying with dangerous goods training requirements per GACAR Part 109 to ensure employees are qualified to perform any assigned duties related to the handling or carriage of dangerous goods.

2.1 TRAINING REGULATIONS

This Training Program and all associated Curriculum contained in this manual comply with applicable regulatory requirements with respect to the following categories of employees:

1. Flight Deck Crew Members.
2. Flight Attendants.
3. Flight Dispatchers.

2.1.1 Crewmember and Dispatcher Training Requirements

GACAR 121.879

Each training program must provide the ground training as appropriate to the particular assignment of the crew member or aircraft dispatcher as prescribed in the respective section of this OMD.

2.1.2 Common Training Curriculum

GACAR § 121.839 (e)

Training subjects that are applicable to more than one aircraft or crewmember position and that have been satisfactorily completed in connection with prior training for another aircraft or another crewmember position need not be repeated during subsequent training other than recurrent training.

2.1.3 Instructor Competency and Responsibility

1. All instructors (flight or ground) must be qualified and competent to perform their assigned duties.
2. Each instructor, supervisor, or check airman who is responsible for a particular ground training subject, segment of flight training, course of training, flight check, or competence check shall certify as to the proficiency and knowledge of the crewmember, aircraft dispatcher, flight instructor, or check airman concerned upon completion of that training or check. That certification shall be made a part of the crewmember's or dispatcher's record.

2.1.4 Eligibility Period

GACAR§ 121.839 (c)

1. The Eligibility Period for taking Recurrent Training, Flight Check or Competence Check is three calendar months (the calendar month before the "training/checking month-EARLY," the "training/checking month- BASE," and the calendar month after the "training/checking month-GRACE").
2. During this period a crewmember or aircraft dispatcher must receive recurrent training, a flight check, a competency check or a familiarization flight (Flight Dispatchers) to remain in a qualified status. Training or checking completed during the eligibility period is considered to have taken or completed it in the calendar month in which it was required.

2.1.5 Flight Operations Training Rules and Policies

1. Following are essentially required as Flight Operations Training Quality Policy that training manager shall ensure that these are continuously monitored and coordinated for compliance:
    a. Sufficient number of instructors and check airmen and support personnel shall be maintained in the department to administer the training and evaluation programs in accordance with OMD.
    b. Objectivity shall be maintained during training and evaluation specially flight training program and the instructors and check airmen shall be permitted to perform assigned activities without undue interference from management and/or external organizations.
    c. Flight crew members shall be trained and evaluated by different individuals' i.e. a crewmember cannot be trained and consequently checked by the same check airman.
    d. A remedial or corrective training and subsequent evaluation of flight crew unable to achieve or maintain required standards shall be tailored to the needs of the individual concerned.

Note: Corrective training due to any reason such as training interruption and or training progress/check failure, shall not exceed more than specified fraction of the training program curriculum for that phase or segment.

e. Instructors, evaluators, check airmen and flight crew members shall use only Mukamalah Aviation authorized documents for the conduct of training and evaluation. Unauthorized training materials (e.g., handouts, training aids) shall not be distributed to or used for the training or evaluation of flight crew members.

f. Training aids and equipment including Simulators, FTD etc. and/or course materials used in the flight crew training and evaluation program, shall reasonably reflect the fleet(s) configuration for which the respective training is being conducted. Differences in equipment configuration will be accepted only if the differences are clearly identified in the training manual/handbooks available to instructors, evaluators, line check airmen and flight crew members.

g. A two-way communication shall be established between and among flight operations management, instructors, evaluators, line check airmen and flight crew members to achieve continual improvement and standardization of ground, flight and line training and operations.

h. Crew members shall be given opportunity to experience crew coordination and teamwork during required training drills and CRM in order to understand the procedures and actions of other crew members during emergency situations. Accordingly, communication and coordination between flight crew members and cabin crew members shall include joint training in CRM and evacuation training modules.

2.1.6 Course Completion Requirements

1. Completion of the curriculum segment must be documented by an instructor's or supervisor's certification that the trainee has successfully completed the course.

2. This certification is usually based on the results of a written examination given at the end of the course. With some training methods, the certification may be based on trainee progress checks administered during the course.

2.2 TRAINING RECORDS

1. A record is defined as an account which preserves evidence of the occurrence of an event. In general, a record must show what event occurred, to whom, by whom, when, and proof of the event's occurrence, such as a certification by signature or by electronic means.

2. Mukamalah Aviation shall maintain current records of each crewmember and each aircraft dispatcher that show whether the crewmember or aircraft dispatcher complies with the applicable regulations, including, but not limited to, proficiency and route checks, airplane and route qualifications, training, any required physical examinations, flight, duty, and rest time records. (GACAR §121.1505)

3. All records shall be maintained for a minimum period specified in OMA.

4. Training Manager shall record each action taken concerning the release from employment or physical or professional disqualification of any flight crewmember and retain that record for 6 months.

2.3 OUTSOURCED TRAINING

GACA eBook 4.9.5, GACAR §121.402

2.3.1 General

GACAR 121.847

1. All Pilots, Cabin Crew, and Dispatchers training shall be accomplished at GACA approved training facilities and locations that has:
2. Training equipment, and courseware curriculums, curriculum segments, and portions of curriculum segments applicable for use in training courses acceptable and approved by GACA as required.
3. Sufficient number of qualified instructor and check pilots to provide training, testing, and checking.
4. All contracted training facilities are listed in Mukamalah Aviation Training Department.

2.3.1.1 Ground Training Segment

All Ground Training and Testing Segments of Flight deck crew, Flight Dispatchers, Crew, and Cabin Crew, required by GACA Regulations, for outsourced it shall comply with conditions specified in OP SPEC.

1. This training shall be conducted under a "Wet Lease" agreement, wherein all Instructors, Training Devices, Training Aids, classrooms, and equipment shall be provided by training provider.
2. Only GACA approved Training Devices shall be used in this training.
3. Only GACA approved Instructors shall conduct this training.
4. Regardless of who developed the training curriculum, Training Manager is responsible for its approval, oversight, content, and currency. Regulations are very clear regarding an operator's requirement to have appropriate crewmember training programs that support their particular operation.
5. All training records shall be recorded and submitted to Training Manager on completion / termination of the Training Program.

2.3.1.2 Flight Training Segment

Mukamalah Aviation shall utilize GACA certified Simulators for its Flight Training Segments.

1. The training provider personnel are not involved in the training or checking of Mukamalah Aviation Flight Deck Crew except as the condition specified in the GACA approval.
2. Mukamalah Aviation is responsible for ensuring that training provider's equipment and facilities continue to meet the standards required to accomplish required training.

2.4 OTHER TRAINING PROVIDERS

From time to time, Mukamalah Aviation may utilize similar training facilities on the induction of new aircraft of new agreement with the prior approval of GACA.

2.5 TRAINING CURRICULUM

1. As an "Alternate Means" GACA permits Mukamalah Aviation to outsource or arrange to have its approved training conducted by a third party. However, it does not mean that Mukamalah Aviation has an "alternative means" to meet the training approval requirements governing its particular operation. Programs approved in accordance with part 142 may not be used as an alternative means of satisfying the training curriculum requirements of Mukamalah Aviation.

   a. The Training Curricula may be developed by Flight Operations Training or the Training Centre (and checked/confirmed to comply with the Mukamalah Aviation operational requirements); however, the responsibility of the curricula is that of Training Department; the Mukamalah Aviation POI is required to approve the curricula.

   b. Training Department is required to provide oversight (surveillance) over the training standards of the Training Provider.

2.6 MUKAMALAH AVIATION RESPONSIBILITY

GACAR Part 121, 3-4413 (A)

2.6.1 Regulatory Compliance

The regulatory responsibility for ensuring that Mukamalah Aviation s training program remains current and continues to meet the Mukamalah Aviation s needs resides with Training Manager.

2.6.2 Pre-implementation Approval

Training Manager shall ensure that all training, testing, and/ or checking to be conducted by the training center has been approved by the POI before any training is accomplished.

2.6.3 Oversight

Mukamalah Aviation shall:

1. Biennially (every 2 years):
    a. Review the Training Centre's applicable Training Curriculum and course ware to ensure Regulatory compliance.
    b. Inspect the Training Centre's Training facilities to confirm acceptable operational standards.
2. Review and approve any changes in the Curriculum prior to implementation.
3. Review and accept Ground and Flight Instructor qualifications and delivery Standards.

2.6.4 Training Centre Personnel Competence

Ensure that all training center personnel selected to act as contract instructors (both ground and flight) and/or contract check airmen are appropriately trained and qualified. Flight instructors and/or check airmen must be qualified in accordance with the Mukamalah Aviation 's approved program.

2.6.5 Simulator Component Inoperative Guide

Ensure that approved Simulator Component Inoperative Guide(s) and associated training devices (FTDs and simulators) are available and used in support of the Mukamalah Aviation s curriculum.

2.7 RESPONSIBILITY – TRAINING PROVIDER

2.7.1 Provision of Facilities, Instructors, Training Devices, Training Aids

It shall be the responsibility of the Training Provider to provide the required Ground Training Facilities, Instructors, Training Devices, and Training Aids.

2.7.2 Segments, Modules Elements and Courseware

1. It shall be the responsibility of the Training Provider to develop, update and maintain Ground Training Courseware in consultation with Training Department.
2. The decision to accept the Ground Training Courseware lies with Training Department.

2.7.3 Service Level Agreement (SLA)

GACA eBook 4.9.

1. An SLA shall be signed with Mukamalah Aviation and Training Centre to which Mukamalah Aviation Training is outsourced.
2. The SLA shall address the following, but not limited to, operational issues in its SLA:
    a. Exactly what portion of the Mukamalah Aviation required crewmember training, checking, and/or testing will the center be authorized to conduct?
    b. What qualification requirements are necessary to enable the training center flight instructors to conduct the requested training (Reference part 121, 121.867 and 121.875.)
    c. How does the operator propose to qualify training center evaluators or other personnel to become contract check airmen (Reference part 121, 121.863 and 121.871.)
    d. Identify measurable specifications that can be monitored by Mukamalah Aviation to ensure following requirements are being fulfilled by the service provider:
    e. Regulatory Requirements.
    f. Improvement of parameters that affect the safety or security of flight operations.
    g. Include periodic auditing/inspection for monitoring of the external service provider.

Note: All Training SLAs records with Training Providers/Part 121 Operators shall be maintained by Training Manager

2.8 DISTANCE LEARNING AS A COMPONENT OF GROUND TRAINING & EVALUATION

GACA eBook 4.21.5.25

1. Distance learning refers to flight crew training or evaluation that is not conducted in a classroom or face-to-face with an instructor or evaluator, but rather is conducted through the use of distributed printed material or electronic media (e.g., Internet, compact disc, etc.).

2. If any distance learning and/or evaluation for providing a required qualification of flight crew is to be utilized, the Training Manager shall ensure that it is approved by GACA for crediting and such training and/or evaluation is appropriately monitored by accomplishing the following process:

   a. Coordinate with Training Service Provider/Testing/Evaluation Agency and obtain training/evaluation success & failure data.

   b. Analyze the training/evaluation success & failure data for the failure trends and deficiencies in Crew Proficiency, Training and Evaluation trends (Methods of Training and Evaluation).

   c. The results shall be reported to Training Manager and the service provider for further handling of required corrective actions concerning the Distance Learning and Evaluation program improvement.

   d. Training management shall utilize concerned flight crewmember's operational non-compliances, training deficiencies and evaluation trends (in simulator, aircraft, and line operations) for trend analysis and program improvement.

   e. Ensure that the training data monitoring process provides for continual improvement of the flight crew training and evaluation program, through monitoring, recording and evaluation of results of successful and unsuccessful flight crew evaluations.

   f. Consider using grading scale criteria (e.g. numerical, letter grade) that provides a means to accurately identify areas for improvement.

   g. File and maintain the above data monitoring and analysis records.

3. FLIGHT CREW MEMBER TRAINING

3.1 TYPES OF QUALIFICATION MODULES

Qualification curriculum segments are composed of qualification modules. Qualification modules are generally divided into testing, checking, and experience modules.

3.2 BASIC TRAINING CATEGORIES

GACA Regulations specify the following six (6) Basic Training categories:

1. Initial New Hire.
2. Initial Equipment.
3. Transition.
4. Upgrade.
5. Recurrent.
6. Requalification.

3.3 TRAINING PROGRAM CURRICULUM

1. Mukamalah Aviation Training Department shall prepare and keep current a written training program curriculum for each type of airplane with respect to each crewmember required for that type of airplane. The curriculum must include ground and flight training required by OMD.
2. Each training program curriculum must include:
   a. A list of principal ground training subjects, including emergency training subjects that are provided.
   b. A list of all the training devices mockups, systems trainers, procedures trainers, or other training aids that Mukamalah Aviation will use.
   c. Detailed descriptions or pictorial displays of the approved normal abnormal, and emergency maneuvers, procedures and functions that will be performed during each flight training phase or flight check, indicating those maneuvers, procedures and functions that are to be performed during the in-flight portions of flight training and flight checks.
   d. A list of airplane simulators or other training devices approved under GACAR§121.855, including approvals for particular maneuvers, procedures, or functions.
   e. The programmed hours of training will be applied to each phase of training.
   f. A copy of each statement issued by the Administrator under §121.851(d) for reduction of programmed hours of training.

3.3.1 Training and Qualification Curriculum

1. Except for the Requalification and Differences categories, each Basic Training category consists of the following Training Curriculums:
   a. Ground Training
   b. Flight Training
   c. Emergency Training
   d. Differences Training (if applicable)
   e. Applicable Additional Training Modules
   f. Qualification Requirements

3.3.2 Position Specific Training Curriculum

1. Regulations require position specific training curriculum (i.e. PIC, SIC, etc.).
2. Except for certain specific training and qualification elements (e.g. RHS training for PIC) the Mukamalah Aviation training curriculum for the PIC and SIC are identical.
3. Therefore, the Mukamalah Aviation Training curriculum for pilots is not position specific; the same curriculum is applicable to both the PIC & SIC; where required, position specific elements are identified, and applicability is stated.

3.3.3 Curriculum Outlines

1. Mukamalah Aviation Flight Operations Training shall prepare and keep current a written training program curriculum for each type of airplane with respect to each crewmember required for that type of aircraft. The curriculum must include ground and flight training required by this subpart.
2. Each training program curriculum must include:
   a. A list of principal ground training subjects, including emergency training subjects that are provided.
   b. A list of all the training devices, mock-ups, systems trainers, procedures trainers, or other training aids that Mukamalah Aviation will use.
   c. Detailed descriptions or pictorial displays of the approved normal, abnormal, and emergency maneuvers, procedures and functions that will be performed during each flight training phase or flight check, indicating those maneuvers, procedures and functions that are to be performed during the in-flight portions of flight training and flight checks.
   d. A list of airplane simulators or other training devices approved under GACAR§121.855, including approvals for maneuvers, procedures, or functions.
   e. The programmed hours of training that will be applied to each phase of training.
   f. A copy of each statement issued by the Administrator under §121.851(d) for reduction of programmed hours of training.

3.3.4 Parts of a Curriculum

Curriculum structures are defined as follows:

1. Segment - An integral curriculum part that can be separately evaluated and approved. It does not individually qualify a person for a duty position (e.g. ground training segment, flight training segment). The first level of curriculum detail.
2. Module - A subject group under a specific curriculum segment, often corresponding to a training day or device event (e.g. FTD session, simulator session). The second level of curriculum detail.
3. Lesson - Lessons contain objectives, events, student materials, instructor materials, and evaluations. The third level of detail.
4. Lesson Element - A subgroup of activities within a lesson. The fourth level of detail.
5. Courseware - Instructional materials developed for each curriculum, including lesson plans, instructor guides, software, audiovisuals, workbooks, manuals, and handouts. Courseware must accurately reflect curriculum requirements, have effective organization, and properly integrate with instructional methods.

3.4 MODIFICATION IN PROGRAMMED FLIGHT TRAINING HOURS AND SECTORS

GACAR §121.839(f), §121.789(a)(4)

1. Mukamalah Aviation may adjust programmed flight training hours or OE sectors by +/- 10% based on trainee progress. This modification aims to optimize training efficiency: reduce hours for trainees exceeding standards and extend hours for those needing extra practice.

Note: This adjustment is restricted if 20% of Mukamalah Aviation's A/C type flight checks within the past 6 months were unsuccessful. In such cases, adjustments await improved training effectiveness.

3.5 ADVANCED SIMULATION PROGRAM/ZERO FLIGHT TIME TRAINING (ZFTT)

GACAR part 121 – Appendix D

1. Mukamalah Aviation leverages an Advanced Simulation Training program for its entire fleet. This program allows completion of all Training and Checking elements (part 121, Appendix "B" and "C") on an advanced simulator (level "C" or "D"), eliminating the need for traditional aircraft local training (Base training).

2. In essence, flight training and evaluation occur solely within advanced simulators, removing the requirement for in-aircraft flight time. A final demonstration of competency in an actual aircraft, under supervision of an approved Check Pilot, remains mandatory.

3. The Flight Instructor's and Check Airman's programs encompass qualification and currency requirements for this Advanced Training Program.

3.6 TRAINING OBJECTIVES AND PRACTICES

3.6.1 Aircraft Ground Training

1. Mukamalah Aviation's aircraft ground training equips flight crewmembers with a thorough understanding of aircraft systems. This knowledge encompasses individual components, system integration, and operational procedures.
2. The core objective is to prepare trainees for seamless transition into flight training. Ground training is tailored to specific aircraft types and utilizes various methods for effective learning. These methods include classroom instruction, ground training devices, computer-based programs, flight simulators, and even static aircraft for hands-on familiarization.

3.6.2 Flight Training

1. Mukamalah Aviation's flight training across all phases (Initial, Transition, and Recurrent) equips flight crewmembers with the necessary skills and knowledge to consistently meet required performance standards.
2. This training offers opportunities for demonstration, instruction, and practice of maneuvers and procedures specific to the aircraft and crewmember position. Successful completion is validated through testing and checking.
3. The core functionalities are further elaborated on:
    a. This opportunity provides for demonstration, instruction, and practice of the maneuvers and procedures (training events) pertinent to a particular aircraft and crewmember duty position. Successful completion of flight training is validated by appropriate testing and checking.
        i. Flight training in normal and non-normal procedures is designed to address the following:
        ii. Pilot Monitoring (PM)/Pilot Flying (PF) and task sharing;
        iii. Positive transfer of aircraft control;
        iv. Checklist philosophy;
        v. Emphasis on a prioritization of tasks;
        vi. Proper use of all levels of flight automation.
    b. Weather condition in flight simulation will be standardized as follow:
        i. Non-precision approach visibility (charted +800 meters) ceiling (charted + 50 feet);
        ii. ILS CAT I simulator operating system default;
        iii. ILS CAT II simulator operating system default;
        iv. Visual approach CAVOK;
        v. Air work IMC conditions.

c. The FFS exercises are listed in the applicable FIHB and shall include, but not limited to the following Training & Evaluation elements:

i. Low Level Wind Shear Avoidance Recovery from predictive and actual windshear

ii. GPWS Alerts & Warnings and avoidance of Controlled Flight into Terrain (CFIT)

iii. TCAS Alert Procedures

iv. Rejected Takeoff

v. Emergency Evacuation

vi. Engine Failures and Engine Fires

vii. Low Visibility Operations including CAT II (including inoperative Ground/aircraft equipment)

viii. Authorized Approaches

ix. RHS (PIC only)

x. Aircraft Upset and Recovery Training

xi. Missed Approach & Rejected Landing

xii. FCM incapacitation

xiii. Stalls & Recovery

xiv. Steep Turns (as applicable)

xv. Normal Abnormal & Emergency Procedures

d. Instructor Briefing:

4. Within a reasonable time prior to conducting the FFS session, the instructor will brief the trainees. The briefing duration for different modules is given in the table below:

Briefing/Debriefing duration per session:		
	BRIEFING (Hrs)	DEBRIEFING
Handling General FFS	2	At instructor's discretion*
LOFT FFS	1	
Company Review FFS	1	
LVO FFS	2	At instructor's discretion*
Base training/ZFTT	1	At instructor's discretion*

3.7 OPERATING EXPERIENCE

GACAR §121.789

1. Crewmember Qualification: Mukamalah Aviation requires all crewmembers to complete the designated operating experience, cycles, and line flying time for their specific aircraft type and position to solidify knowledge and skills. This ensures proficiency before performing duties on the aircraft.

2. Qualification Consistency: Crewmembers who transition within the same aircraft type won't need to repeat operating experience, cycles, and line flying time for knowledge consolidation.

3. Qualification Requirements: Acquiring operating experience, cycles, and line flying time necessitates compliance with the following:

    a. Crewmembers must possess the proper certificates and ratings for their position and aircraft. Pilots seeking PIC qualification require PIC-specific certificates and ratings.

    b. Operating experience, cycles, and line flying time for knowledge consolidation must follow successful completion of relevant ground and flight training for the specific aircraft type and crew position.

    c. Experience must be acquired during operational flights under Mukamalah Aviation's regulations. However, for previously unused aircraft types, operating experience from proving or ferry flights can be applied.

4. Pilot in Command (PIC) Qualification and Observation:

    a. When undergoing initial or upgrade training as outlined in GACAR 121.899 PICs will be observed performing prescribed duties by a qualified inspector during at least one flight leg with takeoff and landing.

    b. For Initial Cadre Check Pilots, a safety pilot from the manufacturer or another source can be used during operating experience (OE) flights. This safety pilot can be removed once the Check Pilot (OE) demonstrates proficiency and acquires sufficient knowledge and skills for safe operation, documented by the Line Check Pilot in the trainee's training file. Additional training will continue until completion of OE supervision to further enhance the trainee's knowledge and skills.

3.8 COURSE COMPLETION REQUIREMENTS

3.8.1 Failure to Meet Requirements

1. Mukamalah Aviation's flight training segments are completed by mastering all designated training events and accumulating the required flight hours. Following this, crewmembers must successfully demonstrate proficiency through the qualification curriculum requirements.

2. In cases where a crewmember exhibits insufficient flight proficiency during qualification testing, they will be returned to training status. Retraining will be followed by an instructor's recommendation for a re-evaluation of the specific, previously unmet qualification requirement.

3.8.2 Exceptions to Requirements

1. Mukamalah Aviation allows for exceeding the designated training hours in a curriculum segment under specific circumstances.

   a. A crewmember must demonstrate proficiency in all required training events.

   b. An instructor must provide a documented recommendation for early flight testing based on the crewmember's exceptional progress.

   c. Successful completion of the qualification requirements remains mandatory. If a crewmember demonstrates insufficient flight proficiency during qualification testing, they will be required to complete all designated training hours. Following this completion, an instructor's recommendation will be necessary for retesting.

3.9 TRAINING DEPARTMENT STRUCTURE

TBA

3.10 FLIGHT OPERATIONS TRAINING REVIEW BOARD

3.10.1 Responsibility

The Flight Operations Training Review Board (FOTRB) serves as a supportive body to the General Manager Flight Operations Training. Their primary function is to identify areas for improvement within the training and checking programs and recommend corrective actions to elevate training standards and ensure consistent quality.

3.10.2 Composition

TBA by Mukamalah Aviation

3.10.3 Functions

1. Evaluate all Training Failures to identify trends and make necessary recommendations.
2. Evaluate Continuation/Termination of Training.
3. Recommend Remedial/Additional Training.
4. Evaluate Training Programs and Training Syllabus.
5. Make FCM Failure corrective action recommendations to the PRB.
6. Authorize Periodical Evaluation of Training Aids/Simulators.
7. Authorize Classroom, CBT and Simulator Observation sessions.
8. Instructor and Check Pilot.

3.10.4 Meeting Schedule

1. The Flight Operations Training Review Board (FOTRB) convenes quarterly to:
    a. Analyze Training Performance: The FOTRB will assess all training failures to identify recurring issues and recommend appropriate corrective actions.
    b. Review Training Materials: The board will evaluate the effectiveness of training programs, syllabuses, and training aids (including simulators) and authorize periodic assessments to ensure their continued quality.
    c. Monitor Training Delivery: The FOTRB will authorize classroom observations, Computer-Based Training (CBT) monitoring, and simulator session oversight to maintain high training standards.
2. Additional Meetings:
    a. The FOTRB will convene additional (ad hoc) meetings in response to specific training concerns, such as a significant training failure, trainee slow progress, or other unforeseen training problems requiring immediate attention.

3.11 INITIAL CADET TRAINING CURRICULUM

3.11.1 Applicability

1. This training category applies to new hires who meet either of the following criteria:

   a. Cadet Pilots: Individuals with no prior experience on any aircraft type as a Flight Crew Member (FCM), as defined in Mukamalah Aviation's Pilot Cadet Direct Hire requirements (reference OMA document).

   b. Mukamalah Aviation Personnel New to FCM Roles: Individuals employed by Mukamalah Aviation who lack prior experience as an FCM within the company, regardless of their previous experience on other aircraft with other companies.

3.11.2 Objective

Initial cadet training is a unique program specifically designed for new pilot hires with no prior flight experience. It combines foundational indoctrination modules with targeted training for the First Officer position on a designated aircraft type.

3.11.3 Ground Training Segment

The Program Hours listed below are required for each Cadet Pilot (SIC).

SECOND-IN-COMMAND (Hours)	
Ground Training Segment Modules	**B737**
Basic Indoctrination Training	40
CRM, ADM & TEM	18
Fatigue Education & Awareness	4
Aircraft Systems and Limitations (CBT)	39.6
Aircraft Systems Differences	1
Cockpit System Familiarization (IPT/FMS)	6
MEL/CDL	1
Flight Planning, Aircraft Performance, Weight & Balance, FLYSMART Procedures	6
EFB/IPAD	2
Low Visibility Operations (LVTO/CAT II/III)	3
Data Link Communications Training (FANS)	1
RVSM Training	0.5
PBN (RNAV/RNP) Training	0.5
CDFA	0.3
TCAS (CBT)	1
Terrain Awareness Procedures and Maneuvers/CFIT	0.5
Adverse Weather & Windshear avoidance and recovery Training	4
Ground De-icing/Anti-Icing Training	1
Special Airports	0.5
Operations in Areas of Volcanic Ash	0.5
Stall Prevention & Recovery	0.3
Upset Prevention & Recovery Training	2.7
Aircraft Systems Integration Training (APT/FTD)*	36
General Emergency Training	8

Aircraft Exterior Preflight Inspection	1
Examination	2
Total Instructional Hours**	**178.9**

** Aircraft Systems Integration Training (APT/FTD) sessions shall have additional 2 hours briefing and session preparation prior to each session and debriefing after the session as appropriate.*

*** Total Instruction Hours exclude 2 hours of examination.*

3.11.4 Flight Training Segment

The Program Hours listed below are required for each Pilot.

SECOND-IN-COMMAND (Hours)	
Module	**B737**
GACA Oral	2
FFS*	32
LVO**	2
Company Check***	2
GACA Type Rating	2
LOFT	4
ETOPS	-
Base/Local Training (ZFTT)#	4
Total Simulator Hours	**46**

** FFS Briefing shall include differences between aircraft types and variants as well as any difference between the aircraft and FFS in use.*

*** The LVO Training & Qualification session shall be 4 hours and each PIC & SIC will be credited with 2 hours.*

**** Company Check should be completed satisfactorily before GACA Type Rating.*

 # Base/Local Training (ZFTT – Zero Flight Time Training) 4 hrs as PF under TRI/CPS supervision.

3.11.5 OE Qualification

Mukamalah Aviation mandates all Operating Experience (OE) to comply with relevant GACARs, OMA directives, and established Mukamalah Aviation procedures.

3.11.5.1 Objectives

1. The OE Qualification equips Flight Crew Members (FCMs) with the necessary observation, training, and operational experience for safe and efficient performance during line operations on the designated aircraft.

2. Successful completion qualifies FCMs to perform line operations on the specified aircraft while adhering to the highest standards of safety and efficiency.

3.11.5.2 Planned Sectors (LEGS)/Hours

SECOND-IN-COMMAND (Sectors/Hours)	
Module	B737
Pre OE Oral	1.5 (Hrs)
Second Officer Time (Sectors)	20
OE* (Sectors)	55
Final ORAL	1.5 (Hrs)
Final Line Check (Sectors)	4
Total Sectors	**79**

** OE Briefing shall include differences between aircraft types and variants as applicable.*

3.12 INITIAL NEW HIRE TRAINING CURRICULUM

3.12.1 Applicability

1. This training applies to two groups of Mukamalah Aviation personnel:
    a. New Hires: This includes individuals newly hired for Flight Deck Crew (FDC) positions with no prior experience at Mukamalah Aviation.
    b. Existing Personnel New to FDC Roles: This applies to current Mukamalah Aviation employees who have not previously held any FDC position within the company, even if they hold experience in other departments or as crewmembers on other airlines.

3.12.2 Objectives

Initial new-hire training encompasses all aspects except basic indoctrination, which is a separate program. It focuses on equipping new hires with the skills and knowledge necessary for a specific duty position and aircraft type.

3.12.3 Ground Training Segment

3.12.4 Flight Training Segment

The Program Hours listed below are required for each Pilot (PIC/SIC) unless indicated otherwise.

3.12.5 OE Qualification

1. Mukamalah Aviation mandates all Operating Experience (OE) to comply with relevant GACARs, OMA directives, and established Mukamalah Aviation procedures.

3.12.5.1 Objectives

1. The OE Qualification trains FDCs in observation, operational experience, and the necessary skills for line operations on the designated aircraft.

3.12.5.2 Planned Sectors (LEGS)/Hours

1. The OE Qualification program equips Flight Deck Crew (FDC) with the necessary observation, training, and operational experience for safe and efficient performance online operations for the designated aircraft.
2. Upon successful completion, FDCs will be qualified to conduct line operations on the specified aircraft, adhering to the highest standards of safety and efficiency.

3.12.6 Airport, Area and Route Qualification

All FDC shall be qualified in Initial and Special Airports, Areas and Routes.

Qualification Cycles	PIC	SIC
Special Airports, Areas and Routes (as applicable) *	1	0

**Designated Special Airports, Areas and Routes are listed in the OMC*

3.13 INITIAL EQUIPMENT TRAINING CURRICULUM

3.13.1 Applicability

1. Mukamalah Aviation applies this training category to Flight Deck Crew (FDC) members in the following scenarios:

    a. Transitioning Duty Positions and Aircraft: This applies to FDCs who are assigned a new duty position on an unfamiliar aircraft type. They will require training and qualification specific to this change.

    b. First Officer Promotion with Aircraft Change: Within Mukamalah Aviation, this category applies to First Officers who are promoted to Captain but will be operating a different aircraft type. They will need training and qualification for both the new captaincy role and the new aircraft.

3.13.2 Objectives

This course trains crewmembers to expertly apply operational theory and procedures for aircraft systems and emergency equipment.

3.13.3 Ground Training Segment

TBA

3.13.4 Flight Training Segment

TBA

3.13.5 OE Qualification

All OE shall be conducted in accordance with Flying – Line Training Handbook.

3.13.5.1 Objectives

1. The OE Qualification program equips Flight Deck Crew (FDC) members with the necessary observation, training, and operational experience for line operations on the designated aircraft.
2. This comprehensive program covers flight characteristics, planning and performance considerations, and airline policies and procedures. Upon successful completion, FDCs will be qualified to operate the specified aircraft safely, efficiently, and in accordance with Mukamalah Aviation's high standards.

3.13.5.2 Planned Sectors (LEGS)

TBA

3.14 TRANSITION TRAINING CURRICULUM

3.14.1 Applicability

1. This training category applies to Mukamalah Aviation Flight Deck Crew (FDC) members who:
   a. Hold existing qualification for a specific duty position.
   b. Will transition to the same duty position on a different aircraft type.
2. The specific experience hours required for this transition training are outlined in the OMA document.

3.14.2 Objectives

1. This course utilizes Computer-Based Training (CBT) and Flight Training Devices (FTDs) to develop crewmember proficiency in handling aircraft systems and emergency equipment procedures.

3.14.3 Ground Training Segment

TBA

3.14.4 Flight Training Segment

The Program Hours listed below are required for each Pilot (PIC/SIC) unless indicated otherwise:

3.14.5 Operating Experience (OE)

3.14.5.1 Objective

1. The OE program equips Flight Deck Crew (FDC) members with the necessary observation, training, and operational experience for safe and efficient line operations on the designated aircraft. This comprehensive program covers critical aspects including aircraft systems operation, flight characteristics, planning & performance, and adherence to Mukamalah Aviation's airline policies and procedures.
2. Upon successful completion, FDCs will achieve qualification to conduct line operations on the specified aircraft, meeting the highest standards of safety and efficiency.

3.14.5.2 Planned Sectors (LEGS)

TBA

3.15 UPGRADE TRAINING CURRICULUM

3.15.1 Applicability

1. Mukamalah Aviation applies this training category to Flight Deck Crew (FDC) members in the following scenario:

    a. Duty Position Upgrade on the Same Aircraft: This applies to FDCs who are transitioning to a higher duty position (e.g., First Officer to Captain) while remaining on the same aircraft type. They will require training and qualification specific to their new responsibilities.

    b. Within Mukamalah Aviation, this program is exclusive to First Officers who are being promoted to Captain on the same aircraft type.

2. The required experience hours for this upgrade training are outlined in the OMA document.

3.15.2 Objectives

1. This course empowers crewmembers with the knowledge and skills to operate aircraft systems and emergency equipment effectively through comprehensive training in operational theory and procedures.

3.15.3 Ground Training Segment

TBA

3.15.4 Flight Training Segment

The Program Hours listed below are required for each PIC under upgrade training.

3.15.5 OE Qualification

GACAR §121.789

Operating Experience (OE) at Mukamalah Aviation must strictly adhere to the guidelines outlined in the Flying – Line Training Handbook.

3.15.5.1 Objectives

1. The OE Qualification program equips Flight Deck Crew (FDC) members with the necessary operational experience for safe and efficient line operations on the designated aircraft. This program focuses on critical areas including flight characteristics, planning & performance, and adherence to Mukamalah Aviation's airline policies and procedures. Upon successful completion, FDCs will achieve qualification to conduct line operations independently.

3.15.5.2 Planned Sectors (LEGS)

TBA

3.16 RECURRENT TRAINING CURRICULUM

3.16.1 Applicability

1. This training category applies to Mukamalah Aviation Flight Deck Crew (FDC) members who meet the following criteria:
   a. Hold existing qualification for a specific duty position and aircraft type within Mukamalah Aviation.
   b. Require annual recurring training and/or checking to maintain their currency and eligibility to perform their duties.
2. This training must be completed within the preceding 12 months and the allowed eligibility period.

3.16.2 Objectives

1. This recurrent training program ensures that Mukamalah Aviation's Flight Deck Crew (FDC) members maintain their proficiency for their specific aircraft type and duty position. It covers critical areas to keep crewmembers current with:
   a. Updated policies, rules, procedures, and crewmember responsibilities.
   b. Developments in the operational environment and aviation industry.
   c. Aircraft systems upgrades, modifications, and new aircraft variants introduced into the fleet.

3.16.3 General

1. All required subjects and topics shall be covered in Recurrent Training over a three (3) year period.
2. Crewmembers must remain proficient in these subjects as long as they continue to serve in the aircraft and crew position.
3. The training required to meet this objective must be given even if it is more than the scheduled hours or listed topics.
4. Applicable GACARs do not require that every subject and topic of training be reviewed during each cycle of training; however, certain subjects such as emergency training shall be covered each year.
5. Pretesting and/or Recommendations derived from monitoring of Training/Checking Reports and Check Pilots Recommendations, should be used to identify areas in which crewmembers are generally deficient to conduct training to proficiency in those areas.
6. Recurrent training syllabuses (not necessarily curriculum outlines) should be revised frequently (preferably annually). Mukamalah Aviation must remove any unnecessary, outdated, superfluous, or inappropriate material and replace it with current and timely material. Mukamalah Aviation shall construct recurrent training curriculum segment outlines in a manner that allows for training syllabus variation in subsequent cycles of training, while not necessitating a new program approval.
7. Training Manager shall develop and maintain such a courseware for each aircraft and for Pilots.

3.16.4 Ground Training Segment

TBA

3.16.5 Method of Instruction and Evaluation

1. Classroom Training.
2. CBT.
3. Examination (all Recurrent Ground Training Cycles shall be subject to QUIZ/Examination)

3.16.6 Training Aids

1. Lectures.
2. Audio-Visual Presentations.
3. Handouts.
4. Interactive Discussions.

3.16.7 Training Devices

1. CBT.
2. Cabin System Trainers (Mockup).
3. Emergency Equipment for hands-on drill/training.

3.16.8 Modules

Recurrent aircraft ground training consists of instruction in three subject areas:

1. General operational subjects;
2. Aircraft systems, and systems integration training;
3. Differences and Individual training (such as Windshear) may also be required.

3.16.8.1 Recurrent Cycle 1

1. CRM/TEM
2. SMS/FRMS/Problematic Use of Psychoactive Substances
3. New or revised policies, rules, instructions or procedures and system upgrade/modification in relevant flight operations manuals/bulletins.
4. Cold Weather Ops; Deicing/Anti-icing
5. Adverse Weather Ops/Thunderstorms and Microburst/Windshear
6. Low Visibility Operations
7. Planning & Performance

8. EFB Cycle 1
9. Aircraft Systems, & Limitations and differences Cycle 1
10. Upset Prevention and Recovery Techniques
11. Emergency and Safety Equipment
12. Dangerous Goods
13. Aviation Security
14. Special Airport Pictorial Review as applicable

3.16.8.2 Recurrent Cycle 2

1. CRM/TEM
2. SMS/FRMS/Problematic Use of Psychoactive Substances
3. New or revised policies, rules, instructions or procedures and system upgrade/modification in relevant flight operations manuals/bulletins
4. PBN (RNAV/RNP) and Data Link Communications (FANS)
5. RVSM
6. Low Visibility Operations
7. NAT HLA Operations (B737)
8. Dispatching and Flight Release Rules
9. Air Masses and Air Front
10. Planning & Performance
11. EFB Cycle 2 (EFB Supplemental, EFB Procedures, Boeing OPT)
12. Aircraft Systems & Limitations and differences Cycle 2
13. Emergency and Safety Equipment
14. Dangerous Goods
15. Aviation Security
16. Flight Crew Incapacitation and in-flight medical events
17. Special Airport Pictorial Review as applicable

3.16.8.3 Recurrent Cycle 3

1. CRM/TEM
2. SMS/FRMS/Problematic Use of Psychoactive Substances
3. New or revised policies, rules, instructions or procedures and system upgrade/modification in relevant flight operations manuals/bulletins
4. Volcanic ash
5. Low Visibility Operations
6. Upset Prevention and Recovery Techniques
7. Landing Procedures
8. Jet Stream
9. Planning & Performance
10. EFB Cycle 3 (JeppFD-Pro)

11. Aircraft Systems & Limitations and differences Cycle 3
12. Emergency and Safety Equipment
13. Dangerous Goods
14. Aviation Security
15. Special Airport Pictorial Review as applicable.

3.16.9 Flight Training Segment

1. The following two separate days of recurrent flight training shall be provided within a preceding period of one year, and the two training days must not occur within a 4-month period of the previous recurrent flight training.
2. The Program Hours listed below are required for each Pilot:

3.16.9.1 General

1. Recurrent training programs will place significant emphasis on the emergency/abnormal checklist. Crewmembers will practice deliberate and methodical completion, ensuring the checklist is not rushed or interrupted by routine tasks until fully finished.
2. Training Requirements:
    a. All exercises mandated in the Initial New Hire/Initial Equipment Flight Training Syllabus (Appendix B to GACAR Part 121) must be completed within a three (3) year cycle.
3. The specific recurrent flight training curriculum is outlined in the applicable Flight Instructors Handbook (FIHB).

3.16.9.2 Training Aids

Maneuvers and Procedures Document (FCOM).

3.16.9.3 Training Devices

GACA Approved Level D Simulator.

3.16.9.4 Modules

Recurrent LOFT Training:

1. The second recurrent training session will focus online Oriented Flight Training (LOFT) and must adhere to the curriculum segments and modules outlined in this manual. These modules will cover, but are not limited to, the following critical scenarios:
    a. Low-Level Windshear: This training will address windshear encounters during takeoff (before VR and after VR) and approach phases, referencing the latest version of AC 120-50.
    b. TCAS Events: Crewmembers will practice proper procedures for Traffic Collision Avoidance System (TCAS) events.

c. CFIT (Controlled Flight into Terrain): This training focuses on preventing unintentional terrain impacts.

2. LOFT Training Requirements:

a. A complete flight crew (Pilot-in-Command and Second-in-Command) will participate in the LOFT scenario.

b. The training will encompass abnormal and emergency procedures that could be encountered during line operations.

c. The scenario will be representative of two flight segments commonly encountered by Mukamalah Aviation (e.g., departure and arrival, without requiring a full gate-to-gate cycle). The crew will perform at least one taxi-out and one taxi-in during the scenario. Additional segments may include takeoff, climb, en-route, descent, and landing.

d. Throughout the scenario, crewmembers will have the opportunity to demonstrate effective workload management and pilot monitoring skills.

3.16.9.4.1 Recurrent LOFT (Line Oriented Flight Training)

TBA

3.16.9.4.2 Recurrent EET – Extended Envelope Training

1. Recurrent EET will be integrated with training for general abnormalities and emergency situations as outlined in the applicable Flight Instructors Handbook (FIHB). This combined training will address a range of critical scenarios, including:

a. **Extended Envelope Training (EET) Elements:** These elements are detailed in the special curriculum segments and modules of this manual.

b. **Loss of Engine Power/Reduced Thrust on Takeoff:** This includes situations with slow acceleration and potential tail strike risks.

c. **TCAS Events:** Training for Traffic Collision Avoidance System (TCAS) scenarios.

d. **Other Operational Safety and Security Emergencies:** This encompasses various emergency situations related to aircraft/engine systems faults and failures.

2. Additional Requirement for Pilot-in-Command (PIC) Recurrent Training:

a. PIC recurrent training will include specific right-seat training (focusing on the SIC position) during one takeoff and one landing sequence.

3.17 REQUALIFICATION TRAINING CURRICULUM

3.17.1 Applicability

This training applies to Flight Deck Crew (FDC) members who previously held a qualification with Mukamalah Aviation for a specific aircraft type and duty position but whose qualification has since lapsed.

3.17.2 Loss of Qualification

A FDC may lose qualification status and become "unqualified" for any of the following reasons:

1. Failure to accomplish all of the recency of experience requirements required by the regulations (noncurrent);
2. Failure to complete recurrent training within the eligibility period (becoming overdue); or
3. Failure of a Proficiency Check/Line Check (becoming disqualified);
4. Upon assignment to a different aircraft, in which he has attended (in part or whole):
    a. Ground Training; or
    b. Ground Training and Simulator.

3.17.3 Objectives

1. This training program aims to requalify Flight Deck Crew (FDC) members on an aircraft type and duty position for which they previously held a valid qualification with Mukamalah Aviation. Requalification is necessary due to a lapse in qualification caused by reasons outlined above.

3.17.4 Requalification Programs

1. FDC Requalification Process:
    a. The path to requalification for Flight Deck Crew (FDC) members depends on the reason and duration of their disqualification. FDCs will complete a customized curriculum comprised of relevant ground school, flight simulator, and qualification check segments.
    b. Currency Lapse: For minor lapses in currency, requalification may involve re-completing specific training events, such as missed approaches or landings.
2. Extended Disqualification:
    a. For FDCs who have been unqualified for a longer period, requalification may be more extensive, potentially requiring them to revisit elements from the initial equipment training program.
3. Remedial Training:
    a. In cases of disqualification, any necessary remedial training will be tailored to address the specific deficiencies identified.

3.17.4.1 Recency of Experience

3.17.4.1.1 Applicability

1. Currency Requirement for Line Operations: To maintain qualification as a required crewmember for line operations on a specific aircraft type, each pilot must perform a minimum of three (3) takeoffs and landings within the preceding 90 consecutive days in that type of airplane. Pilots who fail to meet this currency requirement will be subject to the requalification process outlined in Section XX.

3.17.4.1.2 Re-establishment of Currency

1. The Pilot shall complete at least three takeoffs and three landings:
   a. A takeoff and landing with a simulated engine failure.
   b. A landing from an ILS approach to the lowest ILS minimums the pilot is authorized in revenue operations.
   c. A landing to a full stop.
2. The recency-of-experience qualification module may be accomplished in one of the following devices:
   a. An airplane, in nonrevenue operations (local training) under the supervision of a check pilot (not applicable to Mukamalah Aviation).
   b. An approved Level B, C, or D full flight simulator under the supervision of a check pilot.
3. When a simulator is used to re-establish currency, all FDC positions must be occupied by individuals qualified in the Mukamalah Aviation's procedures and in the specified duty positions.
4. The simulator must be operated in a normal flight scenario. Repositioning is not allowed.

Note: The check pilot who supervises re-establishment of currency must certify that the pilot being supervised is proficient and qualified to perform flight duty in operations and may require any additional maneuvers deemed necessary to make this certifying statement.

5. Alternately requalification may be attained by completing a Proficiency Check.

3.17.4.2 Failure to Complete Recurrent Training/PC/LC

The Re-qualifying individual shall not be released for Line Operations until he has completed the applicable Requalification requirements.

The following table lists the requalification requirements.

1. If the required RGT is not completed within the eligibility period, the FDC shall undergo the due RGT, His recurrent Training Base month shall be reset to the month he completes such Recurrent Training.
2. If the required RFT is not completed within the eligibility period, the FDC shall undergo the due RFT.

3. If the required PC or Line Check is not accomplished within the eligibility period, he shall undergo the due PC or Line Check.
4. The FDC shall undergo the unaccomplished applicable Recurrent Training Cycle/s (Cycles 1, 2, 3).
5. The FDC shall undergo 8 hrs Flight Training to cover normal and nonnormal procedures to regain his competency.
6. The FDC shall undergo:
   a. PC.
   b. OE (4 sectors).
   c. Line Check.

His PC/Line Check Base month shall be reset to the month he successfully completes his PC/Line Check.

3.17.4.3 Reassignment to Previously Qualified Aircraft

1. If a FDC starts Training (Ground School) on another equipment he shall become unqualified on his previous equipment.
2. In case he is reassigned to his previous equipment, Flight Operations Training shall prepare a specific Requalification. Program and present it to GACA for approval.
3. Such approval (duly modified by GACA, if necessary) shall be granted on a case to case basis. The Requalification Program shall be constructed to:
    a. Ensure Regulatory Compliance.
    b. Fulfill Requalification requirements
    c. Contain instruction on Modules/Elements In which instruction has been imparted for the aircraft from which the FCM is being reverted; i.e. if the FCM has been imparted instruction on aircraft systems on the aircraft he was being trained upon, he shall be provided aircraft system instruction on the aircraft he is being reverted to.

3.18 DIFFERENCES TRAINING CURRICULUM

3.18.1 Objectives

1. Mukamalah Aviation provides "differences training" to ensure Flight Deck Crewmembers (FDC) already qualified on a specific aircraft type can safely and efficiently operate other variants of that same type. This training fulfills the requirements of GACAR Part 121.883, which mandates such training whenever an FDC is authorized to serve on multiple variants of an aircraft.

3.18.2 Applicability

1. When deemed necessary by GACA or Mukamalah Aviation, differences training equips crewmembers with the knowledge and skills required to safely operate a specific variant of an aircraft type they are already qualified on. This training addresses the variations between the original aircraft and the new variant, ensuring smooth and efficient operation.
2. Integration into Training Programs:
    a. Differences training for all variations within a type is incorporated into various training programs for Flight Deck Crew (FDC) members, including:
        i. Initial Cadet/New Hire Training
        ii. Initial Equipment Training
        iii. Transition Training (for a different aircraft type)
        iv. Upgrade Training (for a higher duty position)
        v. Recurrent Training and Checking (to maintain proficiency)

3.18.3 Method of Differences Training

1. Mukamalah Aviation's initial training program for Flight Crew Members (FCMs) focuses on the B737-800 variant. Following this initial qualification, separate Differences Training will be provided for other Boeing 737 variants operated by the airline, as detailed in this section.

3.18.3.1 Base Aircraft

1. B737-800 as Reference Aircraft:
    a. For Differences Training, Mukamalah Aviation uses the B737-800 as the reference point to identify variations in other Boeing 737 variants within our fleet. These variations can impact Flight Crew Member (FCM) knowledge and skills relevant to flight safety, encompassing areas like handling characteristics, performance data, and operational procedures.

3.18.3.2 Variant Aircraft

1. A variant aircraft is a Boeing 737 model within the Mukamalah Aviation fleet that differs from the B737-800 in specific ways. These variations, also known as "differences," can potentially impact Flight Crew Member (FCM) knowledge and skills related to flight safety. Key areas where differences might occur include:
    a. Configuration (seating layout, cargo capacity)
    b. Handling characteristics (flight controls, stability)
    c. Performance (speed, range, takeoff/landing requirements)
    d. Procedures (normal, abnormal, and emergency operations)
    e. Limitations (weight restrictions, altitude ceilings)
    f. Controls and Instruments (unique features or functionality)
    g. Systems and Equipment (variations in installed components)
    h. Operational considerations (specific to the variant)
2. Origin of Variants:
    a. Variants typically arise within a model or series due to differences in the factory-installed equipment or configurations.

3.18.4 Curriculum Design

1. Curriculum Development for Differences Training:
    a. The differences training curriculum is meticulously crafted to comply with regulatory requirements established in GACA eBook Ref. 4.21.9 – Differences Training – All Training Categories.
2. This curriculum development follows a rigorous process:
    a. In-depth Analysis: A comprehensive analysis is conducted to identify all variations in systems, equipment, and operating procedures between the B737-800 and the specific variant aircraft involved in the training.
    b. Regulatory Alignment: The training content strictly adheres to the recommended training and checking difference levels outlined for these variants in FAA AC 120-53 (as amended) and relevant FSB reports.

3.18.5 Mukamalah Aviation Differences Training

TBA

3.19 CURRICULUM SEGMENTS AND MODULES

3.19.1 BASIC INDOCTRINATION TRAINING SEGMENT

3.19.1.1 Applicability

1. This segment is applicable to Initial New Hire and initial cadet ground Training. Basic indoctrination is the first curriculum segment of instruction conducted for newly hired flight crew members.
2. This segment is also applicable as part of Recurrent ground Training in a 3-year cycle.

3.19.1.2 Objectives

1. The objective of basic indoctrination training is to introduce newly hired flight crew members to Mukamalah Aviation and its mode of conducting operations in air transportation. The new hire pilot shall comprehend the company's policies, procedures, and means of compliance with regulations while engaged in air transportation.

3.19.1.3 Planned Hours

No.	Modules	Hours
	Mukamalah Aviation Specific Modules	
1	Duties Responsibilities and Company Policy & Procedures	6
2	Appropriate Provisions of the GACA Regulations* * Including the following modules within this module. Safety Management System (GACAR Part 5) 3 hrs Fatigue management (GACAR 117) and Problematic Use of Psychoactive Substances; Prevention and Safety Programs (GACAR 7) 2 hrs Dangerous Goods (GACAR Part 109) 4 hrs Aviation Security 4 hrs	15
3	Contents of Certificate and OpSpecs	1
4	Company Operational Control and Communication	2
No.	**Modules**	**Hours**
	Airman Specific Modules	
5	Mass and Balance (M & B)	1
6	Aircraft Performance and Airport Analysis	4
7	Meteorology	4
8	Navigation (RVSM/PBN – RNAV/RNP)	4

9	Airspace and ATC procedures	1
10	En Route and Terminal Area Charting and Flight Planning	1
11	Concepts of Instrument Procedures and Approaches	1
Total Instructional Hours		40
Exam		2
Total Hours		42

3.19.1.4 Method of Instruction

Classroom Training

3.19.1.5 Training Aids

1. Lectures
2. Audio-Visual Presentations
3. Handouts
4. Interactive Discussions

3.19.1.6 Training Devices

None

3.19.1.7 Modules

3.19.1.7.1 Duties and Responsibilities

1. Flight Crew standards and rules of conduct;
2. Flight Crew duties & responsibilities, and
3. Authority of duty position.

3.19.1.7.2 Mukamalah Aviation Policy and Procedures

1. Company history, organization, and management structure;
2. Company forms, records, and administrative procedures;
3. Flight Crew compensation, benefits, and contracts;
4. Company-required equipment;
5. Company manual organization, revisions, and employee responsibilities concerning manuals;
6. Operational concepts, policies, and kind of operation;
7. Maintenance Coordination and Aircraft logbooks;

8. Non-Routine Operations;
9. Passenger Handling;
10. Carry-on baggage and Exit row seating.

3.19.1.7.3 Appropriate Provisions of the GACA Regulations

1. Certification, training, and qualification requirements for flight crew members
2. Medical certificate requirements, physical examinations, and fitness for duty standards
3. Operational control requirements (dispatch, flight release, or flight-locating procedures)
4. Fatigue management and flight duty/rest requirements (GACAR Part 117)
5. Record-keeping requirements
6. Safety Management System (SMS) regulations (GACAR Part 5)
7. Operational rules outlined in GACAR Parts 91 and 121, and other applicable regulations
8. Regulatory requirements for company manuals
9. Other relevant regulations, such as FCM emergency authority, interference with crew members, and reporting requirements
10. Problematic Use of Psychoactive Substances – Prevention and Safety Education Programs (GACAR Part 7)
11. Dangerous Goods Training (GACAR Part 109)
12. Aviation Security Training – Applicable portions of the GACA Security Regulations
13. GACA Aviation Investigation Bureau (AIB) regulations pertaining to the notification and reporting of aircraft accidents or incidents, overdue aircraft, and preservation of aircraft wreckage, mail, cargo, and records

3.19.1.7.4 Contents of Mukamalah Aviation Company Air Operator Certificate (AOC) and OpSpecs

1. Definitions, description, and organization of Operations Specifications (OpSpecs)
2. Limitations and authorizations outlined in the OpSpecs
3. Description of the Air Operator Certificate (AOC)
4. Description of the General Administration of Civil Aviation (GACA), Safety & Economic Regulation (S&ER), including the responsibilities of the Director of Flight Operations and Principal Operations Inspector (POI)

3.19.1.7.5 Company Operational Control

1. Dispatch, flight release, or flight following systems and procedures.
2. Organization, duties, and responsibilities;

3. Weather and Notices to Airmen (NOTAM) information.

3.19.1.7.6 Communications

1. Normal & Emergency Communication Procedures
2. Company communications
3. Data Link Communications

3.19.1.7.7 Mass and Balance (M&B)

1. Definitions (such as zero-fuel mass, moments, and datum);
2. General loading procedures and center of gravity computations;
3. Effects of fuel burn and load shifts in flight;
4. M&B forms, load manifests, fuel slips, and other applicable documents.

3.19.1.7.8 Aircraft Performance and Airport Analysis

1. Definitions (such as balanced field, visual meteorological conditions (VMC), obstruction planes, and maximum endurance);
2. Effects of temperature and pressure altitude;
3. General Terminal Instrument Procedures (TERPS) criteria (obstacle clearance standards)
4. Airport analysis system as appropriate to the type of operation and family or families of aircraft; and
5. Effects of contaminated runways.

3.19.1.7.9 Meteorology

1. Basic weather definitions (such as forecasts, reports, and symbols);
2. Temperature, pressure, and winds;
3. Atmosphere moisture and clouds;
4. Air masses and fronts; and
5. Thunderstorms, icing, microburst and wind shear (including Low Level Wind Shear), turbulence intensity and Sand Storms;
6. Jet Stream.

3.19.1.7.10 Navigation

1. Definitions
2. Basic navigational instruments
3. Navigational Aids (NAVAID)
4. Performance-based navigation (PBN), RNAV/RNP

3.19.1.7.11 Airspace and ATC Procedures

1. Definitions (such as precision approaches, airways, and automated terminal information service (ATIS));
2. Description of airspace;
3. Navigation performance and separation standards;
4. Controller and pilot responsibilities;
5. ATC communications;
6. Air traffic flow control; and
7. Wake turbulence recognition and avoidance.

3.19.1.7.12 En Route and Terminal Area Charting and Flight Planning

1. Terminology of Jeppesen charting;
2. Takeoff minimums, landing minimums, and alternate requirements:
    a. General company flight planning procedures;
    b. Flight service and international procedures (as applicable);
    c. AIP Charts and Airport diagrams; and
3. Aerodrome Ground Operational Safety:
    a. Flight Crew Procedures During Taxi Operations
    b. Runway Safety and Runway Incursion Avoidance
    c. Taxi Operation at Uncontrolled Airports

3.19.2 Safety Management System (SMS)

3.19.2.1 Objective

1. The objective of the SMS training module is to ensure flight crew members are trained on the elements of the safety management system pertinent to their duties and responsibilities. It aims to describe how the SMS functions, the personnel involved, and the management functions necessary to maintain its effective operation.

3.19.2.2 Applicability

1. SMS training is mandatory for all Initial Cadet, initial new-hire, Recurrent, and Requalification flight crew member Ground Training Curricula.

3.19.2.3 Method of Instruction

1. Classroom setting.
2. Individual/Team participation.

3.19.2.4 Training Aids

Visual aids.

3.19.2.5 Training Elements

3.19.2.5.1 Initial Training

1. Introduction to SMS and the organization's safety policies, goals, and objectives.
2. Hazards and their potential consequences.
3. The fundamental principles of safety risk management.
4. Different functions within management.
5. Unique hazards faced by operational personnel.
6. Lines of communication for disseminating safety information.
7. Flight crew member roles, responsibilities, and procedures for reporting hazards.
8. Specific safety initiatives, such as safety committee(s), seasonal safety hazards and procedures (e.g., Flight in Severe Turbulence), and emergency procedures.

3.19.2.5.2 Recurrent Training

1. A brief review of the SMS Training Elements shall be covered during annual Recurrent Training to ensure continued familiarity with those elements and any changes or recent occurrences in line operations.

3.19.3 Fatigue Education and Awareness Training

3.19.3.1 Applicability

1. Fatigue Education & Awareness Training is mandatory for all flight crew members during initial cadet, Initial New Hire, Initial Equipment, Transition, Upgrade, and Recurrent/Requalification Training as per the prescribed curriculum.

3.19.3.2 Objectives

1. To provide employees with information on the effects of fatigue on flight safety, causes of fatigue, and countermeasures to prevent or mitigate fatigue.
2. The training program shall also cover the Fatigue Risk Management System (FRMS) policies and procedures.
3. As data are collected through the fatigue reporting and monitoring processes, the elements of the education and awareness program may serve as useful tools to amend policies and procedures.

Note: Continuous Assessment of the Training Program:

The Fatigue Training & Awareness Program shall be annually reviewed by the Flight Operations Safety Management System department in coordination with Ground Training department management to identify areas for improvement and enhance the training.

3.19.3.3 Method of Instruction

Classroom Lectures

3.19.3.4 Training Aids

Will be provided by training department

3.19.3.5 Training Devices

None

3.19.3.6 Curriculum Elements

1. Fatigue-related Policies and procedures, and review of flight time, duty time, and rest period regulatory requirements.
2. Awareness of the FRMS program itself, including fatigue-related policies and procedures, and the responsibilities of management and employees to mitigate or manage the effects of fatigue and facilitate improvement.
3. Flight crew member flight deck alertness.
4. The fundamentals of fatigue, including sleep fundamentals and circadian rhythms.
5. The causes, signs, and awareness of fatigue.
6. The effects of operating through multiple time zones and jet lag.
7. The effects of fatigue on pilot performance.
8. Fatigue countermeasures, prevention, and mitigation strategies.
9. The influence of lifestyle factors, including nutrition, hydration, caffeine, nicotine, exercise, medical disorders, and family life on fatigue.
10. Familiarity with sleep disorders and napping.
11. Pilot responsibility for ensuring adequate rest and fitness for duty.
12. Operational procedures to follow when one identifies or suspects fatigue risk in oneself or others.
13. Incorporate lessons learned regarding the effects of fatigue and mitigation initiatives relative to Mukamalah Aviation Company's operations.
14. Methodology to continually assess the effectiveness of the training program.

3.19.4 Dangerous Goods Training

3.19.4.1 Applicability

1. This training is mandatory for Initial New Hire and initial cadet Ground Training.
2. It is also applicable for Recurrent Ground Training (conducted in a 2-year cycle) and Requalification ground training as applicable.

3.19.4.2 Objective

1. To train flight crew members in order to:
   a. Identify and classify dangerous goods.
   b. Recognize and identify dangerous goods labels and package specification markings.
   c. Be aware of provisions for dangerous goods in the baggage of passengers and crew.
   d. Be familiar with dangerous goods emergency response procedures.

3.19.4.3 Method of Instruction

1. Classroom lectures, computer-based training, and video presentations
2. Presentations

3.19.4.4 Training Aids

Handout(s)

3.19.4.5 Training Devices

None

3.19.4.6 Training Elements

1. General philosophy regarding dangerous goods
2. Limitations related to dangerous goods
3. General requirements for shippers of dangerous goods
4. Classification of dangerous goods
5. List of hazardous materials
6. General packing requirements for dangerous goods
7. Labeling and marking requirements for dangerous goods
8. Dangerous goods transport document and other relevant documentation
9. Acceptance procedures for dangerous goods
10. Recognition of undeclared hazardous materials

11. Storage and loading procedures for dangerous goods
12. Pilots' notification procedures for dangerous goods
13. Provisions for dangerous goods in the baggage of passengers and crew
14. Emergency procedures related to dangerous goods

3.19.4.7 Events

3.19.4.7.1 Training

Outsourced

3.19.4.7.2 Testing

1. Flight crew members shall be tested on their knowledge of the elements covered in the Dangerous Goods Training Module.
2. To qualify, flight crew members shall be required to obtain a minimum pass mark of 80%.

3.19.4.8 Qualification Requirements

All flight crew members shall be trained and remain qualified in Dangerous Goods Training.

3.19.5 Aviation Security Training

3.19.5.1 Applicability

All flight crew members and flight attendants shall undergo Security training as part of Initial Cadet/New Hire, Initial Equipment, Upgrade, Transition, Recurrent, and Requalification Ground Training and Checking Ground Training.

3.19.5.2 Objectives

To train flight crew members and flight attendants to:

1. Define and identify risks and threats associated with aircraft crew members and passengers, both in the air and on the ground.
2. Respond to threats, accidents involving crew members and passengers.
3. Understand the processes and procedures currently in use at airports.

3.19.5.3 Method of Instruction

Classroom lectures and computer-based training (CBT)

3.19.5.4 Training Aids

As applicable

3.19.5.5 Training Devices

None

3.19.5.6 Curriculum

3.19.5.6.1 Initial Training

1. Understanding of terrorist behaviors to facilitate the ability to cope with hijacker behavior and passenger responses:
    a. Tactics that could be used to facilitate crew-passenger reaction or interaction with hijackers (e.g., conflict management),
    b. Use of passive or non-passive cooperation,
    c. Understanding Stockholm Syndrome,
    d. Identification of and response to hijacker types/motives
2. Threat evaluation,
3. Determination of the seriousness of an occurrence,
4. Crew coordination and communication,

5. Security of the flight deck,
6. Appropriate self-defense responses,
7. Use of non-lethal protective devices (Not applicable to Mukamalah Aviation Company),
8. Aircraft search procedures and flight deck procedures to protect the aircraft,
9. Least-risk bomb locations designated in applicable aircraft,
10. Sabotage, hijacking,
11. Unruly passengers,
12. Other acts of unlawful interference,
13. Situational training exercises regarding various threat conditions,
    a. Scenarios or situations (e.g., bomb threat, hijacking, unruly passenger).

3.19.5.6.2 Recurrent Training

1. Current threat assessment and trends experienced during line operations
2. Review of recent incidents: Lessons to be learned
3. Government advice
4. Reminders of company emergency procedures, manual amendments, etc.
5. Update of initial training course as appropriate

3.19.6 Emergency and Safety Equipment Training

3.19.6.1 Applicability

Required in initial cadet/new hire, initial equipment, transition, upgrade, recurrent, and requalification ground training.

3.19.6.2 Types of Emergency Training

1. There are two types:
   a. Aircraft-Specific
   b. General Emergency Training

3.19.6.2.1 Aircraft-Specific

1. Covers instruction and practice in aircraft emergency and abnormal procedures related to systems, design, and characteristics.
2. Provides knowledge and skills to perform procedures per the FCOM. Includes aircraft emergency equipment usage and ditching if applicable.

3.19.6.2.2 General Emergency Training

1. Covers required knowledge and skills for emergency functions, duties, and evacuation. Demonstrates realistic accomplishment of duties including crew incapacitation or blocked access.
2. General emergency training itself consists of two types:
   a. Emergency Drill Training
   b. Emergency Situation Training

3.19.6.2.2.1 Emergency Drill Training

1. Instruction and practice in using emergency equipment:
    a. Hands-On:
    b. Operating exits
    c. Fire extinguishers
    d. Emergency oxygen
    e. Flotation devices/ditching
2. Pictorial/Video:
    a. Exits operation
    b. Extinguishers
    c. Oxygen systems
    d. Flotation devices/ditching

3.19.6.2.2.2 Emergency Situation Training

Covers procedures for situations like evacuation, ditching, decompression, fire, first aid.

3.19.6.3 Objectives

Provide general emergency training as per GACAR §121.907.

3.19.6.4 Method of Instruction

1. Classes
2. Demonstrations
3. Observations
4. Drills

3.19.6.5 Training Aids

1. Visual aids
2. Videos
3. View graphs

3.19.6.6 Training Devices

1. Classroom
2. CBT
3. Simulator
4. Equipment
5. Mockup

3.19.6.7 Emergency Drill Training Modules

1. Individual instruction per aircraft type on operating emergency equipment.
2. One-time requirements during initial training:
    a. PBE drill using hand fire extinguisher
    b. Evacuation drill using installed slide
3. Recurrent requirements every 24 months:
    a. Emergency exit operation
    b. Extinguisher operation
    c. Oxygen systems
    d. Flotation device use
    e. Ditching procedures
    f. Observing drills on rafts, slides, evacuation

[Details on specific drill modules]

3.19.6.8 Emergency Situation Training Modules

Joint training with cabin crew should be conducted when possible.

[Examples of module topics]

1. In summary, instruction covers aircraft-specific and general emergency procedures, drills, and situations. Recurrent training validates continued proficiency. Collaboration with cabin crew is emphasized for coordination.

3.19.6.8.1 Flight Crewmember Duties and Responsibilities

1. Emergency assignments
2. Captain's emergency authority
3. Reporting incidents and accidents

3.19.6.8.2 Crew Coordination and Company Communication

1. Cabin crew/Supernumerary notification and coordination procedures among FCM and, as applicable, CCM and/or supernumeraries.
2. Ground agency notification procedures (FAA, Airport Authority)
3. Company communication procedures

3.19.6.8.3 Aircraft Fires

1. Principles of combustion and classes of fire
2. Toxic fumes and chemical irritants
3. Use of appropriate hand-held extinguishers for each class of fire
4. Lavatory fires
5. PBE, Smoke Goggles and Oxygen Masks

3.19.6.8.4 Medical Equipment

1. Contents of first aid kit, universal precaution kit, medical kit
2. Requirements for first aid kit integrity
3. Automated external defibrillators
4. Use of individual items

3.19.6.8.5 Illness, Injury, and Basic First Aid

1. Principles of Cardiopulmonary Resuscitation (CPR)
2. Ear and sinus blocks

3. Seeking medical assistance
4. Treatment of shock
5. Heart attack and pregnancy situations

3.19.6.8.6 Crewmember Incapacitation

1. FCM incapacitation
2. Cabin Crew Incapacitation
3. Demonstration in competence in Duties & Procedures
4. Company procedures
5. Reporting requirements (GACA/AIB)
6. Interference with crewmembers

3.19.6.8.7 Ground Evacuation

1. Aircraft configuration and Situations requiring Emergency Evacuation
2. Directing passenger flow
3. Blocked or jammed exit procedures
4. Fuel spills and other ground hazards
5. Handicapped persons

3.19.6.8.8 Ditching

1. Cockpit and cabin preparation
2. Passenger briefing
3. Crew coordination
4. Primary swells, secondary swells, and sea conditions
5. Ditching heading and water landings
6. Ditching at night

3.19.6.8.9 Rapid Decompression

1. Respiration
2. Instruction in the effects of lack of oxygen/Hypoxia, hypothermia, hyperventilation
3. Time of useful consciousness
4. Gas expansion/bubble formation
5. Physical phenomena and actual incidents

3.19.6.8.10 Previous Aircraft Accidents/Incidents Review and Discussion

1. AIB/NTSB accident report reviews
2. Human factors/considerations
3. GACA reporting system

3.19.6.8.11 Hijacking and Other Unusual Situations

1. Hijack procedures
2. Bomb threat procedures
3. Security coordinator responsibilities
4. In-flight intercept signals and procedures

3.19.6.8.12 Basic Survival Training

1. Psychology Of Survival
2. Search and rescue
3. Signaling
4. Survival in water and adverse weather
5. Energy Use, Loss & Conservation

3.19.6.9 Recurrent General Emergency Training

1. Crew members will undergo recurrent training every year. This training covers both emergency procedures and drills, as detailed previously.
2. The hands-on portion of the training, where crew members practice using emergency equipment, will occur at least every other year (24 months). During the years in between, emergency drills can be delivered through pictures or demonstrations.
3. The hands-on emergency drills, included in the general emergency training program, must cover the following:
    a. Opening and closing all emergency exits (floor level, over-wing, and tail cone) in normal and emergency situations.
    b. Using different types of handheld fire extinguishers.
    c. Operating various emergency oxygen systems.
    d. Putting on, using, and inflating life vests and other flotation devices (if needed).
    e. For applicable aircraft, ditching procedures will also be included. This covers preparing the cockpit, coordinating crew actions, briefing passengers, readying the cabin, using lifelines, and guiding passengers and crew onto life rafts or slide rafts.

3.19.6.10 Emergency Training Terms Description

1. Actual Fire: A controlled fire, big enough and lasting long enough to meet training goals.
2. Approved Fire Extinguisher: A training device specifically allowed by GACA for emergency drill practice.
3. Approved PBE Simulation Device: A training tool authorized by GACA to teach proper use of Protective Breathing Equipment (PBE).
4. Combat: Putting out a real or practice fire with the right kind of extinguisher until it's completely gone.
5. Observe: Watching an emergency drill without taking part actively.
6. PBE Drill: An emergency practice where a crew member demonstrates using PBE correctly while fighting a real or simulated fire.
7. Perform: Completing a required emergency drill correctly, following established procedures that test the skills of everyone involved.
8. Simulated Fire: A realistic-looking fire (smoke or flames) used to create practice scenarios for fighting fires on airplanes, like in lavatories, ovens, or seats.

3.19.7 Aircraft Systems and Limitations

3.19.7.1 Applicability

This training is required for participation in Initial New Hire, Initial Cadet, Initial Equipment, Transition, Upgrade, Recurrent, and Requalification programs (whichever applies).

3.19.7.2 Objectives

1. Aircraft ground training equips pilots with the knowledge they need to understand how an aircraft operates. This includes learning about individual systems, how they work together, and the procedures used during flight. The goal is to prepare students to seamlessly transition to flight training.
2. This type of training focuses on a specific aircraft model and can be delivered in various ways. Pilots can learn through classroom lectures, practice on training devices, use computer programs, or even utilize flight simulators and static aircraft.

3.19.7.3 General

While aircraft manufacturers provide their own training programs for aircraft systems, which typically meet regulatory requirements, this curriculum serves as a guide for flight operations training to guarantee compliance with regulations.

3.19.7.4 Training Devices

Computer Base Trainer (CBT)

3.19.7.5 Training Aids

A variety of training tools, including audiovisual equipment, mockups, and real aircraft components, will be utilized for ground instruction.

3.19.7.6 Aircraft Systems Training Modules and Elements

1. Following is the description of training modules (with typical elements) illustrating the depth and scope that should be provided to the trainee flight crew members. The curriculum must include other systems in the ground curriculum segment that are not provided here and are installed on a specific aircraft as it is not possible to list every conceivable system.
    a. Aircraft General: Typical elements include an overview of the basic aircraft, such as dimensions, turning radius, panel layouts, cockpit and cabin configurations, and other major systems and components or appliances.
    b. Power Plant: Typical elements include a basic engine description, engine thrust ratings, engine components such as accessory drives, ignition, oil, fuel control, hydraulic, and bleed air features.

c. **Electrical:** Typical elements should include elements identifying the sources of aircraft power including engine-driven generators, Auxiliary Power Unit (APU) generator, and external power. Other elements include the electrical buses and related components such as circuit breakers, fuses, the aircraft battery, and other standby power systems, if applicable.

d. **Hydraulic:** Some typical elements are the hydraulic reservoirs, pumps, accumulators; the means of routing hydraulic fluid through filters, check valves, interconnects, and to associated actuators and hydraulically-operated components.

e. **Fuel:** Elements include the fuel tank system (location and quantities), engine-driven pumps, boost pumps, system valves, cross-feeds, quantity indicators, and provisions (if applicable) for fuel jettisoning.

f. **Pneumatics:** Typical elements include bleed-air sources (such as Power Plant, APU, or external ground air), the means of routing, venting, and controlling bleed air via associated valves, ducts, chambers, and temperature and pressure limiting devices.

g. **Air Conditioning and Pressurization:** Typical elements include heaters, air conditioning packs, fans, and other environmental control devices. Pressurization system components include elements such as outflow and negative pressure relief valves with associated automatic, standby, and manual pressurization controls and enunciators'.

h. **Flight Controls:** Elements in flight controls include primary (yaw, pitch, and roll devices) and secondary controls (leading/trailing edge devices, flaps, trim, and damping mechanisms). Elements that indicate the means of actuation (direct/indirect or flyby-wire) should be included as well as applicable redundancy devices.

i. **Landing Gear:** Typical elements should include the landing gear extension and retraction mechanism including the operating sequence of struts, doors, and locking devices, and brake and antiskid systems, if applicable. Other elements are steering (nose or body steering gear), bogie arrangements, air/ground sensor relays, and visual down-lock indicators.

j. **Ice and Rain Protection:** Elements should include rain removal systems and each anti-icing and/or deicing system that prevents or removes the formation of ice from airfoils, flight controls, Power Plant, pitot-static probes, fluid outlets, cockpit windows, and aircraft structures. Other elements should include system components such as pneumatic/electrical valves, sensors, ducts, electrical elements, or pneumatic devices.

k. **Equipment and Furnishings:** Typical elements are the aircraft exits, galleys, water and waste systems, lavatories, cargo areas, crewmember and passenger seats, bulkheads, seating and/or cargo configurations, and non-emergency equipment and furnishings.

l. **Navigation Equipment:** Typical elements are flight navigation system components including flight directors, horizontal situation Indicator, radio magnetic indicators, navigation receivers (ADF, VOR, RNAV, Marker Beacon, DME) used on the aircraft. Other elements include applicable inertial systems (INS, IRS), functional displays, fault indications, and comparator systems; aircraft transponders, radio altimeters, weather radar, and cathode ray tube or computer-generated displays of aircraft position and navigation information.

m. **Auto Flight System:** Typical elements include such items of equipment as the autopilot, auto-throttles and their interface with aircraft flight director and navigation systems, including automatic approach tracking, autoland, and automatic fuel or performance management systems.

n. **Flight Instruments:** Typical elements should include an overview of the panel arrangement and the electrical and pitot-static sources and alternate sources for the flight instruments. Other elements include attitude, heading (directional gyro and magnetic), airspeed, vertical speed, altimeters, standby flight instruments, and other relevant instruments.

o. **Communication Equipment:** Elements include the VHF/HF radios, audio panels, inflight interphone and passenger address systems, the voice recorder, and air/ground passive communications systems (ACARS).

p. **Warning Systems:** Typical elements are aural, visual, and tactile warning systems, including the character and degree of urgency related to each signal. Other elements include warning and caution annunciators systems, including ground proximity and takeoff warning systems.

q. **Fire Protection:** Elements should include all fire and overheat sensors, loops, modules, or other means of providing visual and/or aural indications of fire or overheat detection. Other elements include procedures for the use of fire handles, automatic extinguishing systems, agents, and the power sources necessary to provide protection for fire and overheat conditions in Power Plant, APU, cargo bay/wheel well, the cockpit, cabin, and lavatories.

r. **Oxygen:** Typical elements are the aircraft oxygen system including the installed passenger, crew, and portable systems. Other elements include sources of oxygen (gaseous or solid), flow and distribution networks, automatic deployment systems, regulators, pressure levels, gauges, and servicing requirements.

s. **Lighting:** Typical elements are the cockpit, cabin, and external lighting systems, including power sources, switch positions, and spare light bulb locations.

t. **Emergency Equipment:** Typical elements are the type, location, and purpose of each item of emergency equipment such as fire and oxygen bottles, first aid kits, life rafts, life preservers, crash axes, and emergency exits and lights. Other elements include each item of egress equipment such as slides, slide rafts, escape straps or handles, hatches, ladders or movable stairs.

u. **Auxiliary Power Unit (APU):** Elements should include installation of the APU, APU capacity and operation including its electrical and bleed air capabilities and how it interfaces with the aircraft's electrical and pneumatic systems. Other elements include the APU components such as inlet doors, exhaust ducts, and fuel supply.

3.19.8 Aircraft Performance

3.19.8.1 Applicability

As part of Initial New Hire, Initial Equipment, Initial cadet, Transition, Upgrade, recurrent, and re-qualification Ground Training/Testing.

3.19.8.2 Objective

The primary objective of aircraft ground training is to provide flight crewmembers with the necessary knowledge to calculate aircraft performance in all phases of flight in normal and none normal situations.

3.19.8.3 Curriculum

1. Weight/mass and balance;
2. Takeoff, climb, cruise, approach and landing performance;
3. Obstacle clearance;
4. Fuel planning;
5. Diversion planning;
6. Effect of inoperative or missing components (MEL/CDL);
7. Engine-out drift down.

3.19.9 Aircraft Systems Integration Training (FTD/APT/IPT/FMST)

3.19.9.1 Applicability

1. This training bridges the gap between ground school and simulator sessions. It allows new hires, cadets, transitioning pilots, and those upgrading to a new aircraft type to practice essential skills. These skills include:
    a. Following standard flow patterns (e.g., checklists, procedures)
    b. Operating switches and manipulating systems (hands-on practice)
    c. Understanding how aircraft systems interact (normal, abnormal, and emergency scenarios)

3.19.9.2 Objective

To train the Trainee flight crewmember such that upon completion the trainee will be sufficiently prepared to enter the flight training curriculum segment.

3.19.9.3 General

1. This training allows trainee to become familiar with the cockpit layout, checklists, operator procedures, and other areas that are best learned before they conduct actual flight maneuvers and procedures.
2. System integration training includes FCM interaction in the use of checklists, cockpit resource management, and other operational procedures.
3. Systems integration training shall be accomplished effectively in order to serve as a logical bridge between conventional ground training instructional delivery methods and flight training.
4. System Integration training may be conducted in conjunction with aircraft systems training or as a later phase of the aircraft ground training curriculum segment.

3.19.9.4 Training Devices

1. FTD/APT
2. IPT/FMST

3.19.9.5 Training Aids

Projector, mockup and other special training aids used for FTD/APT session preparation.

3.19.9.6 Modules

3.19.9.6.1 Use of Checklist

1. Safety checks,
2. Cockpit preparation (switch position and checklist flows),

3. Checklist callouts and responses, and checklist sequence,
4. Task Sharing.

3.19.9.6.2 Cockpit Familiarization

1. Activation of aircraft system controls,
2. Normal, abnormal, and emergency switches and control positions,
3. Relevant annunciators, lights, or other caution and warning systems.

3.19.9.6.3 Flight Planning

1. Performance limitations (meteorological, mass, and MEL/CDL items),
2. Required fuel loads, weather planning (lower than standard takeoff minimums or alternate requirements)

3.19.9.6.4 Display Systems

1. Weather radar and
2. Other Navigation displays checklist, (vertical navigation or longitudinal navigation displays).

3.19.9.6.5 Navigation Systems

1. Preflight and operation of applicable receivers
2. Onboard navigation systems
3. Flight Planning Information input & Retrieval
4. Weather Radar

3.19.9.6.6 Auto Flight

1. Autopilot, Autothrust, and Flight Director systems set-up and modes
2. Appropriate procedures, normal and abnormal indications, and annunciators
3. Auto Land Operation

3.19.10 Flight Training Curriculum Segments

3.19.10.1 Applicability

1. Flight training, consisting of various modules delivered in a Flight Simulation Training Device (FSTD), is offered for initial new hires, cadets, transitioning pilots, those upgrading to a new aircraft type, and pilots undergoing recurrent or requalification training.
2. This training follows successful completion of the ground training curriculum. A flight proficiency check is mandatory after flight training and before entering Line Operations (OE).

3.19.10.2 Objectives

3.19.10.2.1 Flight Training Objectives

Flight training equips pilots with the skills and knowledge needed to perform their duties safely and effectively. This hands-on training allows them to practice maneuvers and procedures specific to the aircraft and their role in the crew. Successful completion is confirmed through rigorous testing and evaluation.

3.19.10.2.2 Qualification Objectives

1. The goal of this training program is to assess if trainees have learned the necessary skills. We compare their performance in practical exercises to established standards. Those who meet these objectives successfully complete the program.
2. If someone doesn't meet the standards, they'll receive additional training and need to retake and pass the specific parts they struggled with.

3.19.10.3 Training Devices

1. FSTD
2. Aircraft (if the FSTD is not Cat “C” or “D”)

3.19.10.4 Training Aids

Visual aids used to set up Flight Simulation Training Device (FSTD) sessions, such as projectors, mockups, and additional training equipment.

3.19.10.5 Maneuvers and Procedures

For each training type, respective aircraft Flight Instructor's Handbooks detail maneuvers and procedures in accordance with the following regulations.

3.19.10.5.1 PIC/SIC Initial Cadet/New-hire and Initial Equipment Flight Training

1. Required Maneuvers and Procedures

Training in the maneuvers and procedures in Table 1 must be conducted for satisfactory completion of initial Cadet/New-hire and initial equipment flight training.

a. PICs must complete training in each training event in this table.

b. SICs must complete training in each training event in this table. SIC training in the following events does not require manipulation of the primary aircraft controls but should emphasize duties of the PNF:

c. Steep turns

d. Approach and landing with pitch mis-trim

e. Approach and landing with 50 percent loss of power

f. Approach and landing with flap/slat malfunction

g. Training Emphasis Considerations

2. The Instructor/Check Pilot (Simulator) conducting training must emphasize appropriate areas for these categories of training:

a. For initial cadet/new-hire training, emphasis should be on specific company procedures and procedures for the particular aircraft.

b. For initial equipment training, emphasis should be on company procedures specific to the aircraft.

Note:

The training events identified with the symbol M in the tables are provided with detailed descriptions (or pictorial displays) in respective A/C FIHB.

Maneuvers and procedures preceded with (OpSpec) shall be in accordance with the current applicable operations specifications approved by GACA.

3.19.10.5.2 PIC/SIC Transition and Upgrade Flight Training

1. Required Maneuvers and Procedures: Training in the maneuvers and procedures must be conducted for satisfactory completion of transition or upgrade flight training.

a. PIC Transition Training. PICs must complete training in each training event in this table.

b. SIC Transition Training. SICs must complete training in each training event in this table. SIC training in the following events does not require manipulation of the primary flight controls but should emphasize the duties of the PNF:

i. Approach and landing with pitch mis-trim

ii. Approach and landing with 50 percent loss of power

iii. Approach and landing with flap/slat malfunction

iv. Steep turns

c. PIC Upgrade Training. An SIC upgrading to PIC must complete training in each training event.

2. Training Emphasis Considerations:

a. The Instructor/Check Pilot (Simulator) conducting training must emphasize the appropriate areas for these categories of training:

b. For transition training, emphasis should be on the handling characteristics and the maneuvers and procedures pertinent to the specific aircraft type.

c. For upgraded training, emphasis should be on the specific duties and responsibilities pertinent to the crew member position.

3.19.10.5.3 PIC/SIC Recurrent & Requalification Flight Training

1. Required Maneuvers and Procedures:

Training in the maneuvers and procedures in accordance with the following paragraphs, must be conducted for the satisfactory completion of recurrent flight training.

a. Recurrent Flight Training must be conducted for PICs and SICs once every 6 months.

b. Requalification Flight Training. Requalification flight training is conducted specifically to restore a previously line qualified crew member to line qualified status. To be eligible for this training, a crew member must have previously been qualified in the specific aircraft type and duty position and have subsequently lost his qualification.

2. Training Emphasis Considerations: During periods of RFT, emphasis should be on those events or other maneuvers or procedures not normally encountered during routine line operations, such as abnormal or emergency procedure training or windshear training. Additionally, training on new or revised maneuvers or procedures, new equipment, or other similar areas is ideally suited for periods of RFT. Time should be allotted to conduct training in maneuvers or procedures the airman wishes to practice, or in certain operational areas in which deficiencies have surfaced during proficiency or line checks, indicating a need for additional training.

Note: Even though all of the maneuvers and procedures may not be accomplished during RFT, the RFT curriculum

segment outline should address all of the required training events.

3.19.10.6 Flight Training Modules

A generic construction of modular flight training sessions is provided below that may vary with the aircraft and category of training.

3.19.10.6.1 Normal Procedures

1. Simulator Period – 1
2. Simulator Period – 2
3. Simulator Period – 3

3.19.10.6.2 Abnormal/Emergency Procedures

1. Simulator Period – 4
2. Simulator Period – 5
3. Simulator Period – 6
4. Simulator Period – 7

3.19.10.6.3 Events Within Training Modules

1. The specific details for each training module, including normal, non-normal, and emergency procedures, are outlined in the respective aircraft Flight Instructor's Handbook (FIHB). However, these modules generally address the following key areas:
   a. General elements relating to task sharing and use of checklist are as follow:
      i. Pilot Monitoring (PM)/Pilot Flying (PF) and task sharing;
      ii. Positive transfer of aircraft control;
      iii. Checklist philosophy;
      iv. Emphasis on a prioritization of tasks;
      v. Proper use of all levels of flight automation.
   b. Weather condition in flight simulation will be standardized as follow:
      i. Non-precision approach visibility (charted +800 meters) ceiling (charted + 50 feet).
      ii. ILS CAT I simulator operating system default.
      iii. ILS CAT II simulator operating system default.
      iv. Visual approach CAVOK
      v. Air work IMC conditions.
   c. The FFS exercises are listed in the applicable FIHB and shall include, but not limited to the following Training and Evaluation elements:
      i. Low Level Wind Shear avoidance Recovery from predictive and actual wind-shear.
      ii. GPWS Alerts and Warnings and avoidance of Controlled Flight Into Terrain (CFIT).
      iii. TCAS Alert Procedures.
      iv. Rejected Takeoff.
      v. Emergency Evacuation.
      vi. Engine Failures and Engine Fires.
      vii. Low Visibility Operations including CAT II (including inoperative Ground/aircraft equipment).

viii. Authorized Approaches.

ix. RHS (PIC only).

x. Aircraft Upset and Recovery Training.

xi. Missed Approach and Rejected Landing.

xii. FCM incapacitation.

xiii. Stalls and Recovery.

xiv. Steep Turns (as applicable).

xv. Normal Abnormal and Emergency Procedures.

xvi. Extended Envelope Training.

3.19.10.7 Pilot Concurrent Flight Training

1. To optimize training efficiency, flight simulation sessions in a FSTD can involve two pilots simultaneously. This applies to training combinations like Pilot-in-Command (PIC) and Second-in-Command (SIC), or even two PICs or SICs together.
2. During this paired training, one pilot (pilot A) will fly the aircraft while the other (pilot B) acts as the Pilot Monitoring (PM) according to established procedures in the Flight Crew Operating Manual (FCOM). This process is then reversed, with pilot B taking the controls and pilot A assuming PM duties.
3. The PM's role encompasses normal, abnormal, and emergency procedures as outlined in the FCOM, along with crew coordination practices based on Crew Resource Management (CRM) principles. This shared experience provides both pilots with valuable "crew-concept" training throughout the session.
4. Importantly, both pilots can receive full credit for the training hours completed during the session. For instance, if a PIC and SIC participate in a four-hour FSTD session and each actively flies for roughly half the time, both can receive four hours of training credit.
5. It's important to note that this method of crediting training hours is only valid when both pilots have an equal opportunity to fly the simulator. If the instructor is occupying a pilot seat and providing instruction, this method wouldn't apply.

3.19.11 LOFT Qualification

3.19.11.1 Applicability

3.19.11.1.1 Qualification LOFT

Part of initial New Hire, Initial cadet, Initial Equipment, Transition, Upgrade, and Requalification Flight Training Curriculum.

3.19.11.1.2 Recurrent Training LOFT

Part of Recurrent Flight Training Curriculum

3.19.11.2 Objectives

3.19.11.2.1 Qualification LOFT

1. Qualification LOFT bridges the gap between flight simulation and real-world flying. It integrates technical knowledge, flying skills, proper procedures, and Crew Resource Management (CRM) for a smooth transition to operational environments.
2. During this session, the crew gets to practice the technical skills they learned in previous training in a realistic "line" setting, mimicking actual flight conditions.
3. The main goal of Qualification LOFT is to fulfill the initial qualification requirements set forth in GACA Part 121, Appendix D. It will be conducted in a simulator specifically approved under GACA Part 121.855.

3.19.11.2.2 Recurrent LOFT

1. Recurrent LOFT provides a realistic, uninterrupted "line" environment for crews to hone their technical skills and Crew Resource Management (CRM) abilities.
2. These scenarios are specifically designed to target the CRM objectives outlined in the latest versions of Federal Aviation Administration (FAA) Advisory Circulars (AC) 120-35 and 120-51 on Crew Resource Management Training.

3.19.11.3 Method of Instruction

1. Briefing & Debriefing
2. Simulator Training

3.19.11.4 Training Aids

Applicable LOFT Curriculum as listed in the applicable Mukamalah Aviation Flight Instructor's Handbook.

3.19.11.5 Training Devices

Aircraft Simulator level C or higher

3.19.11.6 LOFT Session & Types of LOFT

1. Line-Oriented Flight Training (LOFT) immerses flight crews in realistic scenarios using a Flight Simulation Training Device (FSTD). These planned scenarios mirror real-world flight segments and procedures, allowing crews to practice without instructor interruptions (except for speeding up uneventful parts).
2. There are two main types of LOFT:
    a. Qualification LOFT: This simulator training bridges the gap between flight simulation and operational flying. It integrates technical knowledge, flying skills, proper procedures, and Crew Resource Management (CRM) for a smooth transition to real-world flying. Crews practice previously learned technical skills in a realistic "line" setting. Qualification LOFT fulfills the initial qualification requirements set forth in GACA Part 121, Appendix D, and is conducted in a simulator approved under GACA Part 121.855.
    b. Recurrent LOFT: Conducted during any recurrent training phase, this session allows crews to hone both technical and CRM skills in an uninterrupted "line" environment. Recurrent LOFT scenarios are designed to target CRM objectives outlined in the latest versions of FAA Advisory Circulars (AC): 120-35 and 120-51 on Crew Resource Management Training.
3. Key characteristics of Recurrent LOFT:
    a. Utilizes a complete flight crew
    b. Covers abnormal and emergency maneuvers and procedures encountered in real operations
    c. Represents flight segments relevant to the specific aircraft type

Note: Recurrent LOFT must include scenario-based or maneuver-based stall prevention training (approach to stall) before, during, or after the LOFT scenario for each pilot.

3.19.11.7 Crew Composition Pairing Restrictions

Crew Requirements for LOFT:

1. Qualification LOFT: This training requires a complete flight crew (Pilot-in-Command (PIC) and Second-in-Command (SIC)) who are both undergoing qualification. Ideally, a qualifying crew member should be paired with fully line-qualified colleagues.
2. Recurrent LOFT: All crew members participating in recurrent LOFT should be line-qualified and form a complete flight crew.
3. Crew Familiarity and Substitutions: While crew members should be familiar with their assigned positions, substitutions might be necessary on rare occasions when the required composition can't be maintained. In such cases, the table below outlines guidelines for permissible substitutions to avoid training disruptions.

3.19.11.8 LOFT Credit

1. LOFT Training Credit (4 Hours):

a. Both recurrent and qualification LOFT sessions typically last at least 4 hours to ensure adequate training time for all crew members. Following the guidelines in the latest version of FAA Advisory Circular (AC) 120-35 ("Line Operational Simulations"), all participants receive 4 hours of training credit, with some variations depending on the crew composition.

2. Two Trainees (PIC or SIC):

a. Matching crew positions (e.g., two PIC trainees or two SIC trainees) is ideal for LOFT training.

b. Refer to AC 120-35 for specific scheduling and substitution rules for recurrent and qualification LOFT.

c. Both trainees get full credit (4 hours) if:

i. The session meets the minimum 4-hour format outlined in AC 120-35.

ii. At least 2.5 hours are spent actively participating in the LOFT scenario.

iii. The pilots switch roles (PIC/SIC) roughly halfway through the simulated flight segment.

3. One Trainee (Qualification LOFT):

a. When only one pilot participates in qualification LOFT, they receive full credit (4 hours) if:

i. The session meets the minimum 4-hour format outlined in AC 120-35.

ii. At least 2.5 hours are spent actively participating in the LOFT scenario.

3.19.11.9 LOFT Scenario Construction

1. LOFT Scenarios for Mukamalah Aviation:

Both qualification and recurrent LOFT sessions for a specific aircraft type should incorporate at least two flight segments reflecting realistic Mukamalah Aviation operations. However, a complete gate-to-gate cycle isn't mandatory.

2. Flight Segments:

a. **Segment 1 (Qualification LOFT):** This segment focuses solely on normal operating procedures, covering pushback from the gate at one airport to arrival at the gate at another.

b. **Segment 2 (Both Qualification & Recurrent):** This segment concentrates on specific maneuvers and incorporates abnormal and emergency flight operations training. It should include:

i. Takeoff, climb, en route, descent, and landing phases.

ii. Opportunities for each pilot to demonstrate workload management and pilot monitoring skills.

iii. Scenario-based or maneuver-based stall prevention training (approach to stall) for each pilot before, during, or after the main LOFT scenario (Recurrent LOFT only).

3. Scenario Building Blocks:

a. Scenarios can be customized by combining elements from these categories:

i. Pre-flight activities: Icing conditions, cargo loading anomalies (addressed during pre-flight planning and cockpit preparation).

ii. Taxi operations: Navigate the aircraft from gate/ramp to runway or vice versa using signage and charts to prevent runway incursions.

iii. Flight planning: Origin, routing, and destination variations (e.g., short vs. long routes).

iv. Approach procedures: Unexpected runway changes.

v. Flight management systems: Alternate operation of these systems.

vi. Abnormal and emergency conditions: Simple situations (potential hot start) or complex scenarios lasting the entire flight (failed essential AC bus).

vii. Weather conditions: Adverse weather.

viii. Equipment malfunctions: Partial or full loss of integrated flight management systems, windshear, issues with special navigation equipment.

ix. System issues: Traffic alert and collision avoidance system (TCAS) malfunctions.

x. Aircraft configuration: Incorrect pitch trim settings or improper cargo loading.

3.19.11.10 LOFT Scenarios

1. LOFT Scenario Management:
   a. Development and Update: LOFT scenarios for each aircraft type will be documented in the relevant Flight Instructor's Handbook (FIHB).
   b. These scenarios will be reviewed and updated annually to comply with current GACA regulations.
2. Scenario Construction:
   a. The scenarios will be built following the guidelines outlined above, ensuring they reflect realistic Mukamalah Aviation operations for the specific aircraft.
3. GACA Approval:
   a. GACA approval is not mandatory for these scenarios.
   b. However, GACA may request them to be submitted for review purposes as part of their oversight activities.

3.19.11.11 CRM Component of Pre-LOFT Briefing

1. LOFT Briefing: Beyond the Rules: While LOFT procedures are essential, the briefing should delve deeper into Crew Resource Management (CRM) factors that impact crew performance. Here's how:
   a. Reverse Briefing: This technique encourages crew participation by asking them to "brief themselves," revealing their understanding of key CRM concepts. Instead of passively receiving information, they become active participants, discussing topics like:

i. Building a strong team environment in the cockpit and with air traffic control.

ii. Delivering operationally sound briefings that are engaging, address coordination, planning, and potential problems.

iii. Crewmember responsibilities beyond the captain's role, emphasizing how everyone can contribute to planning and identifying potential issues.

iv. Integrating cabin crew as part of the team.

b. Communication and Teamwork: The briefing should prompt discussions about communication:

i. How crew members view raising questions and advocating for their ideas, even if it leads to disagreement.

ii. The balance between questioning, advocacy, and respecting the captain's authority.

iii. Recognizing signs of effective teamwork and task completion.

iv. Examples of how poor workload management and lack of situational awareness can contribute to incidents.

v. Strategies to avoid crew overload.

c. CRM and Technical Proficiency: Exploring the link between CRM and technical skills is crucial. Here are some discussion starters:

i. The relationship between technical proficiency and CRM. Can CRM compensate for a lack of technical skills?

ii. While LOFT assumes technical knowledge and proficiency in procedures, the briefing should emphasize that strong CRM skills cannot make up for a lack of technical proficiency. Conversely, even high technical skills won't guarantee safety without effective crew coordination.

d. Self-Critique: Discussing crew attitudes towards self-critique is valuable:

i. What is their understanding of critique?

ii. Do they see value in reviewing positive behaviors, not just mistakes?

iii. Have they used critique in real-world operations?

iv. When is critique appropriate?

e. Benefits of a Strong Briefing:

i. A well-conducted briefing reinforces CRM principles and technical procedures learned in training. Without it, LOFT becomes a simulation without focus, potentially neglecting CRM and emphasizing individual technical skills or abnormal procedure usage.

3.19.11.12 LOFT CRM Briefing and Crew Coordination

1. Benefits of a Strong LOFT Briefing: A well-conducted LOFT briefing sets the stage for a productive training session by focusing on Crew Resource Management (CRM) and fostering open communication among the crew. Here's what a good briefing achieves:

    a. Open Communication Environment: The facilitator encourages questions, comments, and active participation. They answer questions directly, listen attentively, and avoid interrupting or rushing the briefing. Making appropriate eye contact also reinforces this open atmosphere.

    b. Interactive and Two-Way: The briefing is not a one-sided lecture. It emphasizes the importance of questions, constructive criticism (critique), and information sharing from all crew members.

    c. Teamwork and Clear Goals: The agenda is set, expectations are outlined, and the importance of teamwork is established.

    d. Safety and Operational Focus: Relevant safety and operational issues are addressed, including potential concerns like weather, delays, or abnormal system operations.

    e. Crew Coordination: The briefing outlines guidelines for crew actions, workload distribution, and division of labor.

    f. Simulator Handling: Expectations are set for how to handle simulator performance deviations and mechanical problems.

    g. Facilitator Guidance: By including CRM discussions, the briefing helps guide the facilitator's observations during the LOFT session. These observations will then be highlighted during the debriefing session.

    h. Crew Preparation: The briefing prepares the crew for an effective training experience. It should be comprehensive, engaging, and provide an overview of the entire LOFT scenario.

    i. Impact on Training: Effective facilitators create a positive training environment by demonstrating their own commitment to LOFT. This prepares the crew to actively participate in a realistic simulation of line operations, followed by a productive debriefing session after the simulator training.

3.19.11.13 Pre-Flight Activities

1. Preparing for a Realistic LOFT Session: LOFT facilitators will ensure the crew receives complete flight planning documentation, mimicking a real pre-flight and dispatch process as closely as possible. This includes providing the following documents:

    a. Dispatch release with flight plan and analysis

    b. Weight and balance data, loading instructions, and fuel loading information

    c. Weather information and forecasts

    d. Notices to Airmen (NOTAMs)

    e. Performance data sheet and automated terminal information service (ATIS) information

f. Signed-off inbound maintenance log sheets

g. Continued items list

h. MEL placards

i. Company documents

2. Flight Deck Setup: The Flight Crew Operating Manual (FCOM) should be available in the simulator early enough for the crew to conduct a normal pre-flight setup, replicating their usual practices. If the standard procedure involves the flight engineer entering the cockpit before the captain and first officer, this sequence should be followed in the LOFT scenario.

3. Balancing Time and Realism: While aiming for maximum realism, there's flexibility to modify the scenario for time efficiency, similar to a connecting flight situation. Establishing a planned departure time helps streamline pre-flight activities and enhances the overall realism of the LOFT experience.

4. Simulator Considerations:

a. Inoperable Components: If a crucial component malfunctions and hinders the scenario's realism, the scenario should be adjusted or postponed.

b. Minor Simulator Malfunctions: Minor malfunctions can be addressed by placing placards in the simulator, following established MEL procedures, just like a real aircraft encountering a minor issue.

c. Unexpected Equipment Failures: If an equipment failure occurs during the simulation that could realistically happen in an aircraft, the scenario can continue, with adjustments as needed.

3.19.11.14 FCM Responsibilities

1. During a LOFT session, crew members are expected to perform as they would in a real-world flight situation. This includes:

a. Carrying out their regular flight duties: Pilots, flight engineers, and other crew members should perform their assigned tasks as usual.

b. Operating avionics realistically: Use the flight instruments and navigation systems just as they would on a real flight, including changing radio frequencies as needed.

c. Acting naturally: Behave authentically, without feeling pressured to perform in a specific way or try to guess the "correct" solution. The goal is to practice natural crew interaction and decision-making.

d. Comprehensive flight planning: Plan the flight just as you would for a real airline operation, utilizing all the services typically provided by the company and air traffic control (ATC).

e. Following standard procedures: Perform all normal pre-flight checks, communications, and in-flight procedures, such as final weight checks, departure reports, and in-range reports.

f. Simulating real-world communication: Use headsets and emergency breathing equipment as you would in a real flight scenario.

3.19.11.15 Debriefing The LOFT

1. The Power of Debriefing: Learning from the LOFT Experience A well-conducted debriefing is crucial for maximizing the benefits of LOFT training, especially regarding Crew Resource Management (CRM) skills. Here's what effective debriefing looks like:

    a. Crew-Led Discussion: The facilitator shouldn't lecture but act as a resource. They'll highlight key moments in the LOFT suitable for review, critique, and discussion, led by the crew members themselves. This approach can be replicated on real flights for challenging situations where crew self-assessment is valuable.

    b. Focus on CRM and Technical Skills: The debriefing concentrates on integrating CRM skills with technical proficiency. This includes crew coordination, communication, decision-making, and resource management (ATCs, manuals, charts, other crew members, autopilot, etc.). The facilitator ensures these areas are thoroughly explored.

    c. Encouraging Self-Critique:

    d. Self-analysis over lectures: Crews are often more critical of themselves than the facilitator. The facilitator should foster this self-analysis by acting as a moderator, guiding the discussion and asking questions about specific procedures, decisions, and areas for improvement. Lectures and criticism should be minimized to avoid defensiveness.

    e. Facilitator Guidelines: Here are key actions for facilitators to ensure a productive debriefing:

        i. Set the Stage: Clearly outline the debriefing agenda, solicit topics from the crew, and set time limits.

        ii. Crew Self-Appraisal: Ask for the crew's overall assessment of their performance.

        iii. Objective Feedback: Share your observations objectively, focusing on performance and avoiding defensiveness.

        iv. Highlight Key Examples: Use video excerpts to illustrate both technical and CRM skills, focusing on key learning points. Avoid showing excessive footage.

        v. Balanced Feedback: Integrate technical and CRM feedback seamlessly, avoiding preaching or glossing over important discussion points.

        vi. Probing for Improvement: Patiently probe into areas where individual and crew performance can improve.

        vii. Inclusive Discussion: Ensure all crew members participate and draw out quieter or hesitant crew members.

        viii. Summarize Key Learnings: Clearly recap the main takeaways from the debriefing.

        ix. Individual Feedback: Ask for specific feedback on each crew member's performance.

        x. Technical and CRM Expertise: Demonstrate proficiency in debriefing both technical skills and CRM aspects.

    f. Debriefing Goals:

i. Open Performance Discussion: Encourage open discussion and assessment of both individual and crew performance.

ii. Learning Through Experience: The debriefing fosters a safe space for crews to explore new behavioral strategies without formal evaluation. This learning experience builds on self-critique.

iii. Relating to Real Flights: During the summary, connect the LOFT experience to real-world operations. Encourage the crew to identify behaviors from the LOFT that can be applied on actual flights.

iv. Feedback Importance: Reinforce the importance of feedback, even on routine flights. A few minutes at the end of a flight can be used to discuss areas for improvement or highlight successful teamwork.

2. Effective debriefing empowers crews to learn from their LOFT experience through self-critique. Focusing on both CRM and technical skills, debriefing fosters positive learning and prepares crews to transfer these skills to real-world operations.

3.19.11.16 Additional Training/LOFT and SPOT Completion

1. LOFT (Line-Oriented Flight Training) is designed as a safe learning environment where crews can practice their skills and identify areas for improvement. It's important to remember:

   a. Unforeseen Outcomes: Unexpected results during a LOFT session don't necessarily reflect inadequate training. They can be valuable learning opportunities.

   b. Focus on Improvement: LOFT helps crews enhance their Crew Resource Management (CRM) skills and technical proficiency. It's distinct from a Line Operations Evaluation (LOE), which focuses on evaluating performance for line flying.

   c. Addressing Identified Needs: If additional training is deemed necessary after a LOFT session, it could involve:

      i. More LOFT Sessions: Additional LOFT training can be tailored to address specific areas where improvement is needed.

      ii. Special Purpose Operational Training (SPOT): This targeted training focuses on specific skills or procedures.

   d. Documentation and Return to Line Operations: Any additional training required will be documented and confirmed as completed before the crew member returns to regular flights.

   e. Addressing Shortcomings During LOFT: While LOFT is designed as a "no-jeopardy" training environment, the facilitator may recommend further LOFT training if deemed necessary. This additional training will be documented in the crew member's flight crew member (FCM) records.

3.19.12 Base/Local Training (ZFTT)

GACAR Part 121 Appendix D (Advanced Simulation), GACA E-Book, VOL 4, Chapter 21

3.19.12.1 Applicability

1. For the following Mukamalah Aviation training programs, flight training will be conducted in a qualified "C" or "D" level simulator:
    a. Initial New Hire
    b. Initial Cadet
    c. Initial Equipment
    d. Transition
    e. Upgrade
2. Mukamalah Aviation utilizes advanced simulation devices for flight training, eliminating the need for aircraft usage in basic training. This is known as Zero Flight Time Training (ZFTT):
    a. **Simulator Training and Evaluation:** Flight training and evaluation occur entirely in advanced simulators.
    b. **Final Line Operation Demonstration:** A final competency demonstration is conducted in an actual aircraft during scheduled line operations under the supervision of a Line Check Pilot (all seating positions).
3. The successful demonstration of competencies in both the qualified simulator and real-world line operations ensures that pilots possess all the skills necessary for unsupervised flying.

3.19.12.2 Objective

Improve skill levels of previous training provided with emphasis on Circuit Traffic Patterns, Takeoff, approach & Landing.

3.19.12.3 Training Devices

Full Flight “C” or “D” Level Simulator

3.19.12.4 Module Elements

3.19.12.4.1 Initial Cadet

1. For initial cadets with a valid CPL and jet orientation experience, base training must include:
    a. A minimum of 6 landings in a simulator, including at least one full stop landing.
    b. Simulator training conducted in two 2-hour sessions (total duration: 4 hours).
    c. Day and night operation scenarios covered during the simulator sessions.

3.19.12.4.2 Initial New Hire, Initial Equipment, Transition and Upgrade (PIC/SIC)

Initial/Transition and Upgrade Pilot Base Training (PIC/SIC): For pilots qualifying for Pilot-in-Command (PIC) or Second-in-Command (SIC) positions in initial, transition, or upgrade training who meet the relevant experience requirements outlined in the Operations Manual Part A (OMA), base training must include:

1. A 1-hour simulator session.
2. A minimum of 4 landings, including at least one full stop landing.

3.19.12.4.3 Session Proficiency Criteria

1. To enhance pilot proficiency during Zero Flight Time Training (ZFTT) simulator sessions before Line Flying Under Supervision (LFUS), the following factors should be incorporated:
    a. Landing Performance Variables:
    b. Runway surface conditions
    c. Runway length
    d. Flap configuration
    e. Power settings
2. Environmental Factors:

Crosswind and turbulence conditions

3. Aircraft Weight Considerations:

Maximum Takeoff Weight (MTOW) and Maximum Landing Weight (MLW)

4. Scenario Focus:

The ZFTT simulator session should focus on normal operating conditions.

5. Transition to Line Flying:

Line Oriented Evaluations (OEs) should commence as soon as possible following the ZFTT session.

3.19.13 Operating Experience Segment

GACAR § 121.789, GACA E-Book 4.21.7.25

3.19.13.1 Applicability

1. For Initial Cadet, Initial New Hire, Initial Equipment, Transition, and Upgrade training programs, crew members must complete supervised operating experience (OE) modules as outlined in this section before performing unsupervised revenue flights.
    a. Eligibility for OE:
        i. Successful completion of ground and flight simulator training.
        ii. Passing the Type Rating or Simulator Proficiency Check, demonstrating the necessary knowledge and skills for aircraft operation.
    b. OE Completion:
        i. OE must be conducted during revenue operations, except for new aircraft fleet integration.
        ii. For new aircraft integration, flight hours from proving flights, ferry flights, or training flights can be credited towards OE requirements.

3.19.13.2 Objective

1. The Operating Experience Segment (OE) serves a critical purpose in pilot training. It aims to solidify the knowledge and skills recently acquired.
2. By successfully completing the OE, Mukamalah Aviation ensures its flight crew members are current and qualified to operate into specific airports, navigate designated areas and routes, and handle specific route segments encountered in regular Mukamalah Aviation flights.
3. Only after completing the OE can a pilot be released for unsupervised line operations as Pilot-in-Command (PIC) or Second-in-Command (SIC) on the specific aircraft type.

3.19.13.3 Training Devices

Respective aircraft type.

3.19.13.4 Training Aids

Briefing/debriefing by Check Pilot.

3.19.13.5 Training Document

Flying – OE Handbook

3.19.13.6 OE Hours and Sector Requirements

1. The Line Check Pilot (OE/All Seats) overseeing the OE segment plays a crucial role in ensuring trainee pilots meet all requirements before unsupervised flights. Their responsibilities include:
    a. Verifying Sector Completion: The Line Check Pilot must confirm that the trainee completes the necessary number of sectors for each training category outlined in this manual.
    b. Ensuring Compliance with Regulations: They must also ensure the total hours logged during the OE segment comply with the minimum operating experience requirements for turbojet aircraft as mandated by GACAR § 121.789 (c).
        i. Initial Training: 25 hours for each pilot (PIC/SIC)
        ii. Transition Training: 25 hours for PIC and 15 hours for SIC are required.

NOTE: Pilot Monitoring and Pilot Flying Experience: To ensure well-rounded training for Second-in-Command (SIC) duties, at least 20% of the programmed training sectors during the OE segment must be flown as Pilot Monitoring (PM). The remaining 60% should be flown as Pilot Flying (PF). This distribution allows the trainee to develop and demonstrate proficiency in both monitoring and flying tasks.

3.19.13.7 Modules

3.19.13.7.1 PIC Operating Experience

1. Training Categories and Responsibilities: The specific OE requirements depend on the training category (e.g., Second Officer, Right Hand Seat, Qualifying Pilot-in-Command). The following outlines the responsibilities for each category:
    a. Second Officer Sectors: The qualifying Pilot-in-Command (PIC) observes flight operations from the jump seat.
    b. Right Hand Seat (RHS) Sectors: The qualifying PIC acts as Second-in-Command (SIC) with a qualified PIC.
    c. Operating Experience (OE) Sectors: The qualifying PIC performs the duties of a PIC under the supervision of a Line Check Pilot (OE/All Seats).
2. Supervision During OE: A Line Check Pilot (OE/All Seats) will be on the flight deck during OE flights operating in designated areas, routes, and airports used in Mukamalah Aviation operations. This ensures familiarity with these locations before unsupervised flying.
3. Airports Requiring Instrument Approaches: For airports requiring instrument approaches that the Captain under supervision hasn't performed previously, familiarization will occur using resources like Jeppesen terminal charts and approach plates.
4. Pilot Knowledge and Skills for OE: The Line Check Pilot (OE/All Seats) is responsible for ensuring the Captain under supervision acquires the necessary knowledge and skills in the following areas:
    a. Route and Airport Knowledge:

i. Terrain and minimum safe altitudes

ii. Seasonal weather conditions

iii. Meteorological information, communication facilities, and air traffic procedures

iv. Search and rescue services for the flight path

v. Navigation facilities and procedures, including long-range navigation

vi. Procedures for high-density airspace and populated areas

vii. Airport details including obstructions, layout, lighting, approach aids, and procedures

b. **Special Routes/Areas and Airports (if applicable):** Training Management/Check Pilot ensures the Captain receives training for special routes/airports as outlined in the Operations Manual Part A (OMA). This may include:

i. Routes with difficult terrain (mountains, high winds, etc.)

ii. Airports with challenging visibility or approach environments

iii. Featureless or unlit areas requiring specific skills

5. Overall, the OE program ensures that pilots possess the knowledge and practical experience necessary to safely operate flights on specific routes and into specific airports before performing unsupervised duties.

3.19.13.7.2 SIC Operating Experience

1. **Second-in-Command (SIC) Operating Experience (OE):** The OE program provides opportunities for SICs to gain experience under supervision. Here's what to expect during each stage:

a. **Second Officer Sectors:** During these flights, the qualifying SIC observes flight operations from the jump seat, gaining valuable insights into crew coordination and overall operation.

b. **OE Sectors with Supervision:** The qualifying SIC performs their normal duties under the guidance of a qualified Line Check Pilot (OE/All Seats). This allows them to put their knowledge and skills into practice in a real-world setting.

2. **Knowledge and Skills Development During OE:** The Line Check Pilot plays a crucial role in ensuring the SIC acquires the necessary knowledge and skills for the specific routes, areas, and airports they'll encounter in Mukamalah Aviation operations. This includes:

a. **Terrain and Minimum Safe Altitudes:** Understanding the terrain profile and safe operating altitudes for the planned flight path.

b. **Seasonal Weather Conditions:** Being familiar with typical weather patterns for the time of year in the operating area.

c. **Communication and Navigation:** Knowing how to use meteorological information, communication facilities, air traffic services, and navigation procedures effectively.

d. **Search and Rescue:** Awareness of search and rescue procedures for the areas overflown.

e. **Long-Range Navigation:** Understanding the long-range navigation systems used along the flight route.

f. **Procedures for Busy Airspace:** Knowing the specific procedures for operating in high-density airspace and heavily populated areas.

g. **Airport Operations:** Being familiar with airport details like obstructions, layout, lighting, approach aids, and arrival, departure, holding, and instrument approach procedures for the planned airports, including minimum safe operating conditions.

3. By participating in the OE program, SICs gain the knowledge and practical experience needed to confidently perform their duties in various operational environments.

3.19.13.7.3 PIC/SIC Common OE Module Elements

1. The Line Check Pilot plays a key role in ensuring the flight crew member systematically gains experience in all the crucial duties they'll encounter in regular operations. These duties encompass, but are not limited to:

2. Safety Procedures:
   a. Terminal security procedures
   b. Aircraft security and anti-hijacking procedures
   c. Flight Preparation:
   d. Weather forecasting and information sources
   e. Flight planning
   f. Dispatch procedures
   g. Cockpit setup, initializing computers, entering current position and waypoints
   h. Confirming navigation setup
   i. Mass and balance computation (including last-minute changes)

3. Ground Operations:
   a. Air traffic control (ATC) flow control procedures
   b. Procedures for using the Minimum Equipment List (MEL) and Current Defects List (CDL)
   c. Pushback procedures and limitations
   d. Procedures for fueling and confirming fuel loads
   e. Familiarity with major terminal areas

4. Communication and Monitoring:
   a. Terminal and en-route communication procedures
   b. Flight progress and fuel monitoring procedures

5. Adverse Weather Management:
    a. In-flight weather watch
    b. Diversion procedures
6. Through participation in the OE program under supervision, the flight crew member builds the confidence and proficiency necessary to handle these critical aspects of their role in a real-world setting.

3.19.13.7.4 Recommendation for Final Line Check

Following the Operating Experience (OE) program, the Line Check Pilot (OE/All Seats) will assess the trainee's skills and knowledge. Only upon confirming the trainee meets the required level for the crew position through completion of OE cycles (sectors) and hours, will the Line Check Pilot recommend them for the final line check.

3.20 SPECIAL CURRICULUM SEGMENTS AND MODULES

3.20.1 Crew Resource Management (CRM)/Threat and Error Management (TEM) Training

GACAR §121.887, §121.919

3.20.1.1 Applicability

1. Crew Resource Management (CRM) and Threat and Error Management (TEM) training will be integrated into the following ground and flight training programs:
    a. Initial Cadet
    b. Initial New Hire
    c. Initial Equipment
    d. Transition
    e. Upgrade
    f. Recurrent
    g. Requalification (if applicable)

NOTE: To enhance communication and collaboration within the flight crew, Flight Crew Members (FCMs) and Cockpit Crew Members (CCMs) will attend joint Crew Resource Management (CRM) training sessions. These sessions will incorporate group exercises designed to foster teamwork and communication skills.

3.20.1.2 Objectives

1. To enhance flight safety by fostering strong crew coordination and teamwork.
2. To ensure optimal flight performance by utilizing all available resources, including the expertise of each crew member.

3.20.1.3 Method of Instruction

1. Classroom Lectures delivered/facilitated by duly qualified Instructors holding essential credentials, and trained in human performance and human factors principles
2. Interactive Discussions
3. Training Exercises

3.20.1.4 Training Devices

Full Flight Simulator (in LOFT Training)

3.20.1.5 Elements

1. This training equips crew members with the skills and knowledge to effectively manage flight operations and enhance safety. Key areas include:

    a. **Communication and Decision Making:** Effective communication and collaborative decision-making are crucial for a well-functioning crew.

    b. **Human Factors and Crew Dynamics:** Understanding human factors like fatigue, stress, and personality differences is essential for smooth crew interaction.

    c. **Situational Awareness:** Maintaining clear awareness of the flight situation allows for timely and informed decisions.

    d. **Safety and Security Briefings:** Crew members will be trained on conducting and participating in safety and security briefings.

    e. **CRM Concepts:** Core concepts like Inquiry, Advocacy, Assertion, Self-Critique, and Conflict Resolution are explored to enhance crew communication and collaboration.

    f. **Leadership and Teamwork:** Training focuses on effective leadership, followership, and concern for task completion within the crew.

    g. **Interpersonal Relationships and Group Climate:** Fostering positive interpersonal relationships and a healthy group dynamic is essential for crew effectiveness.

    h. **Workload Management:** Techniques for managing workload effectively to reduce stress and improve performance are covered.

    i. **Preparation, Planning, and Vigilance:** Crew members will learn the importance of thorough preparation, planning, and maintaining vigilance throughout the flight.

    j. **Individual Factors and Stress Management:** Understanding personal factors and techniques for managing stress are addressed.

    k. **Threat and Error Management (TEM):** Strategies for identifying and mitigating threats and errors are explored.

2. **Dispatcher-Specific CRM Training:** In addition to the core CRM curriculum, Flight Crew Members (FCMs) and Dispatchers will participate in joint training sessions focusing on:

    a. **Human Factors in Joint Operations:** This training addresses human factors specifically impacting coordination and mutual understanding between Dispatchers and Flight Crews.

    b. **Shared Learning Objectives:** Dispatchers and Flight Crews will work towards common learning objectives established by operational control and flight operations management personnel.

3. **CRM Curriculum Updates**:

    a. Training management will regularly review and update the CRM/Dispatch Resource Management (DRM) curriculum based on real-world experiences.

b. This update process will focus on common communication, situational awareness, and decision-making issues observed between Flight Operations Officers (FOOs) and Flight Crews.

4. Specifically Addressed Dispatcher-Pilot Communication Issues: The following areas, observed in line operations, will be included and updated in the CRM/DRM training curricula to improve communication and collaboration between Dispatchers and Pilots:

   a. Dispatch Briefing

   b. Preflight Planning and Estimated Payload Data

   c. Fuel Calculations

   d. Aircraft Status Information and MEL/CDL Understanding

   e. NOTAMs and Weather Information

   f. Assigning Enroute and Destination Alternates

   g. Flight Watch and Radio Communication (including ACARS)

   h. Standard Company Reports

3.20.1.6 Qualification Requirements

All Flight Deck Crewmembers (FDC members) must fulfill the following Crew Resource Management (CRM) training requirements:

1. Initial, Transition, and Upgrade Training: CRM training is included as a mandatory component in these programs.
2. Maintaining CRM Currency: FDC members can maintain their CRM training currency by either:
3. Completing the CRM Module (a dedicated CRM training program)
4. Participating in LOFT Training (Line Oriented Flight Training) combined with CRM Ground Training.

3.20.2 Aeronautical Decision-Making Training

3.20.2.1 Applicability

All Flight Deck Crewmembers (FDC) will receive training in Aeronautical Decision Making (ADM) as a fundamental part of the Initial New Hire Ground Training curriculum.

3.20.2.2 Objectives

To train FDC in the Aeronautical Decision Making process.

3.20.2.3 Curriculum

1. Definitions

2. The ADM Process
3. Conventional decision Making vs Aeronautical Decision making
4. Operational Pitfalls
5. Hazardous Attitude Inventory
6. Dealing with Hazardous Attitudes
7. Stress & Flying
8. Risk Management
9. Identifying the Danger
10. Teaching ADM

3.20.3 Controlled Flight into Terrain (CFIT)

GACA, CR, Section 6, VOL 1, 21, CFIT Training

3.20.3.1 Applicability

As part of the Initial New Hire, Initial Equipment, Transition, Upgrade and Recurrent ground and flight training and Checking Curriculum.

3.20.3.2 Objectives

To improve FDC awareness in the threats of CFIT, and to provide the necessary knowledge and skills to prevent CFIT accidents.

3.20.3.3 Method of Instruction

1. Class Room Lectures/CBT
2. Interactive Discussions
3. Simulator Training Exercises

3.20.3.4 Training Aids

CFIT Education and Training Aid, Flight Safety ALAR Tool Kit.

3.20.3.5 Training Devices

Aircraft Simulator

3.20.3.6 Ground Training Elements

1. This training equips pilots with the knowledge and skills to prevent inadvertent flight into terrain. Key areas include:
    a. Terrain Awareness Procedures and Maneuvers:

i. CFIT critical route and destination familiarization

ii. Altitude awareness and callouts

iii. Responding to Ground Proximity Warning System (GPWS) alerts and warnings

b. Safe Flight Practices:

i. Appropriate use of autopilot

ii. Importance of accepting ATC clearances

iii. Effective checklist usage to avoid CFIT

c. Crew Coordination and Situational Awareness:

i. Proper allocation and distribution of Flight Deck Crewmember (FDC) duties

ii. Understanding of human factors in CFIT and the importance of maintaining situational awareness (CRM/LOFT focus)

d. Technical Knowledge:

i. Understanding of GPWS operating modes

ii. Principles of barometric altimetry.

3.20.3.7 Flight Training Elements

1. CFIT Avoidance Simulator Training Scenarios: These scenarios will equip pilots with the knowledge and skills to prevent Controlled Flight Into Terrain (CFIT) incidents.

a. Pre-Briefing:

i. Review of contributing factors and causes of CFIT accidents.

ii. Importance of effective flight crew coordination in CFIT avoidance.

b. GPWS Familiarization:

i. Exploration of Ground Proximity Warning System (GPWS) operating modes.

ii. Practice recognizing GPWS warnings and applying proper response procedures.

iii. Discussion of escape maneuver techniques and common pilot errors related to CFIT.

c. Simulator Exercises (Minimum Two):

i. Practice escape maneuvers from GPWS warnings under both Visual Meteorological Conditions (VMC) and Instrument Meteorological Conditions (IMC).

ii. Emphasis on demonstrating pilot awareness and effective crew coordination in CFIT situations.

d. Debriefing and Review:

i. Analysis of CFIT avoidance strategies and escape maneuvers.

ii. Identification of potential "traps" and areas for improvement in pilot techniques.

3.20.3.8 Qualification Requirements

1. All Flight Deck Crewmembers (FDC members) must complete Controlled Flight Into Terrain (CFIT) avoidance training as part of:
    a. Initial Training: For new hires.
    b. Transition Training: When transitioning to a new aircraft type.
    c. Upgrade Training: When qualifying for a higher pilot position.
    d. Recurrent Training: To maintain proficiency at regular intervals.

3.20.4 High Altitude Operations

GACAR §61.85(g)

3.20.4.1 Applicability

Part of Initial New Hire, Initial Equipment, Transition, Upgrade, and Recurrent Training Curriculum.

3.20.4.2 Objectives

To train the trainee in aspects of High Altitude Flight.

3.20.4.3 Method of Instruction

1. Classroom Lectures/CBT
2. Interactive Discussions
3. Training Exercises

3.20.4.4 Training Devices

None

3.20.4.5 Elements

Essential High-Altitude Operations Training: This outlines the fundamental knowledge and skills pilots must possess for safe flight at high altitudes. While this program provides a solid foundation, we encourage pilots to utilize any additional resources available to further enhance their understanding.

3.20.4.5.1 Ground Training

1. The High Altitude Flight Environment:
    a. Airspace.
    b. The use of supplemental oxygen, and the donning of oxygen masks.
2. Weather:
    a. The atmosphere.

b. Winds and clear air turbulence.

c. Thunderstorms.

d. Icing.

3. Flight Planning and Navigation:

a. Flight planning.

b. Weather charts.

c. Navigation.

d. Navaids.

4. Physiological Training:

a. Respiration.

b. Hypoxia.

c. Effects of prolonged oxygen use.

d. Decompression sickness.

e. Vision.

f. Altitude chamber (optional).

5. High Altitude Systems and Components:

a. Oxygen and oxygen equipment.

b. Pressurization systems.

c. High-altitude components.

6. Aerodynamics and Performance Factors:

a. Acceleration.

b. G-Forces.

c. Mukamalah Aviation H Tuck and Mukamalah Aviation H Critical.

7. Emergencies:

a. Decompressions.

b. Donning oxygen masks.

c. Failure of a mask, or complete loss of oxygen supply/system.

d. In-Flight Fire

e. Flight into severe turbulence or thunderstorms.

3.20.4.5.2 Flight Training

1. Preflight Briefing.
2. Preflight Planning:
   a. Weather briefing and considerations.
   b. Course plotting.
   c. Aircraft Flight Manual review.
   d. Flight plan.
3. Preflight Inspection:
   a. Functional test of the oxygen system, including verification of the supply and pressure, regulator operation, oxygen flow, mask fit, and cockpit and Air Traffic Control (ATC) communication using mask microphones.
4. Emergencies:
   a. Simulated rapid decompression, including the immediate donning of oxygen masks.
   b. Emergency descent.
   c. Planned Descents.
   d. Shutdown Procedures.
   e. Post-flight Discussion.

3.20.5 Low Visibility Operations

3.20.5.1 Low Visibility Operations, FDC Training & Qualification Program

GACA E-Book VOL 5

1. LVTO/CAT II/IIIA Training and Qualification Sequence for FDC Members: Flight Deck Crewmembers (FDC members) will undergo Low Visibility Takeoff (LVTO)/ Category II (CAT II) and Category III (CAT IIIA) training and qualification in the following order:
   a. Ground Training: This initial phase provides FDC members with the theoretical knowledge and procedures for low visibility operations.
   b. Flight Simulator Training: Pilots will practice essential skills in a simulated environment, including:
      i. Low visibility taxi and takeoff procedures
      ii. CAT II and CAT IIIA approach and landing procedures
   c. Flight Simulator Checking (Optional): Successful completion of the Flight Simulator Training (FSTDT) may substitute for a separate flight simulator check.

Note: The LVO Taxi, Takeoff, CAT II and CAT IIIA approach and landing training will be conducted simultaneously.

3.20.5.2 Applicability

1. Initial training programs for new pilots (Cadet/New Hire)
2. Training for transitioning to a new aircraft type (Initial Equipment)
3. Transitioning to a different aircraft model within the same type rating (Transition)
4. Upgrading to a higher pilot position (Upgrade)
5. Maintaining proficiency through regular recurrent training (Recurrent)
6. Re-establishing qualifications after a lapse (Requalification)
7. Specifically for CAT IIIA Operations:

This program can also qualify existing Low Visibility Takeoff (LVTO) and Category II (CAT II) pilots for Category III A (CAT IIIA) operations.

3.20.5.3 Objectives

1. Equip Flight Deck Crewmembers (FDC) with the knowledge and skills necessary to conduct safe and efficient operations in low visibility conditions, including Low Visibility Takeoff (LVTO), Category II (CAT II), and Category III A (CAT IIIA) approaches and landings.
2. This training aims to achieve a level of safety in low-visibility operations equivalent to that experienced in normal visibility conditions.

3.20.5.4 Method of Instruction & Evaluation

1. Classroom lectures I Computer Based Training Video on LVTO/CAT II/IIIA Operation Examination.

3.20.5.5 Training Devices

1. CBT LVO Module I FTD/APT/IPT
2. Full Flight Simulator.

3.20.5.6 Ground Training

1. The following curriculum shall be applied to Initial Cadet I New Hire, Initial Equipment, Transition and Upgrade training as applicable. This curriculum also applies to qualify the FDC for CAT IIIA Operation who are currently qualified for LVO – CAT II operation.

3.20.5.7 Programmed Schedule

03:00 hours.

3.20.5.8 Ground Training Elements

1. Ground Systems and NAVAIDS for LVO (LVTO, CAT II/IIIA): This section covers the characteristics, capabilities, and limitations of ground systems and navigation aids (NAVAIDs) used for LVO operations:

   a. NAVAIDs

   b. Instrument Landing System (ILS)

   c. Marker beacons

   d. Distance Measuring Equipment (DME)

   e. Compass locators

   f. Non-ground based systems (e.g., GPS, GNSS-based Landing System (GLS))

   g. Waypoint selection and use procedures

   h. Integrity assurance

   i. Contingency plans for failures

   j. Visual Aids

   k. Required approach lighting systems:

   l. Touchdown zone lighting

   m. Centerline lighting

   n. Runway edge lighting

   o. Taxiway lighting

   p. Standby power for lighting systems

   q. Lighting specific to CAT IIIA operations (e.g., centerline coding for distance remaining)

   r. Lighting for displaced thresholds, stopways, and other relevant configurations

   s. Runway and Taxiways and Surface Movement Guidance and Control System (SMGCS)

   t. Runway and taxiway characteristics:

   u. Width

   v. Safety areas Obstacle-free zones

   w. Markings

   x. Hold lines

   y. Signs

   z. Holding spots or taxiway position markings

aa. Runway distance remaining markings and signs

bb. SMGCS use (as applicable)

2. Training Items:

a. Apron (Ramp) Operations: Specific low-visibility taxi routes using separate SMGCS airport charts, facilitating safety for support vehicles (ARFF, follow-me, towing, marshaling).

b. ILS Critical Areas, Runway Safety Areas, and Obstacle-Free Zones

c. Stop Bar Lights

d. Runway Guard Lights

e. Taxiway Centerline Lights (including ILS critical area alternating green and yellow)

f. Clearance Bar Lights

g. Runway Lead-On and Lead-Off Lights

h. Geographic Position Markings

i. Taxiway and Runway Hold Position Markings

j. Movement/Non-Movement Boundary Markings

k. Other Pavement Markings (e.g., surface painted signs)

l. Use of Low-Visibility Taxi Route Chart(s):

m. Familiarization with taxi routes and entrances to runways for takeoff.

n. Primary and alternate exits from runways and taxi routes.

o. Taxi Procedures at Turns Requiring Judgmental Oversteering

p. Weather Reporting

q. Weather reporting and transmissometer systems:

r. RVR locations and readout increments

s. Sensitivity to lighting levels for runway edge lights

t. Variation in significance of reported values during international operations

u. Controlling and advisory status of readouts

v. Requirements when transmissometers become inoperative

w. Facility Status

x. Interpretation of outage reports for lighting components, standby power, or other factors.

y. Proper application of NOTAMs regarding initiating low-visibility takeoffs or CAT II/IIIA approaches.

z. The Airborne System and Equipment

3. This section covers the characteristics, capabilities, limitations, and proper use of airborne systems for LVO operations:

a. Flight Guidance

b. Aircraft flight control system

c. Autopilot/flight director instruments

d. Landing and roll-out system and associated displays

e. Procedures for checking proper selections and system performance

f. Speed Management

g. Auto-throttle system

h. Flight Management Computer (FMC) or other speed management system (as applicable)

i. Instruments

j. Situation information displays (as applicable)

k. Supporting Systems

l. Other associated instrumentation and displays (as applicable)

m. Mode annunciation

n. Status monitoring

o. Failure or warning annunciations

p. System status displays

q. Aircraft Characteristics

4. Any aircraft characteristics relevant to CAT II/IIIA, such as:

a. Cockpit visibility cutoff angles and the effect on visibility of proper eye height

b. Seat position

c. Instrument lighting intensities during transitions through varying brightness conditions

d. Effects on flight visibility of different flap settings, approach speeds, landing/taxi light use, windshield wiper/rain repellent procedures

e. Effects of windshield defog, anti-ice, or de-icing systems on forward visibility (proper settings for low-visibility landings)

f. Cockpit or Aircraft System Differences

g. Differences between variants within the same type and different aircraft registrations (if any) to ensure pilot awareness and understanding of those consequences.

3.20.5.9 Flight Training

1. This curriculum applies to:
    a. Initial Cadet/New Hire
    b. Initial Equipment
    c. Transition & Upgrade (as applicable)
    d. Pilot Roles:
    e. All PICs (Pilots-in-Command) require PF (Pilot Flying) training.
    f. All First Officers require PM (Pilot Monitoring) training.

Note: CAT IIIA maneuvers will be appropriately combined and done in conjunction with other required approaches necessary for CAT II training and qualification when such combinations are appropriate (e.g., engine-inoperative missed approach).

3.20.5.10 Programmed Schedule

1. 02:00 Briefing combined with Low Visibility Taxi/Takeoff and CAT II/IIIA operation
2. 04:00 Simulator Session combined with Low Visibility Taxi/Takeoff and CAT II/IIIA operation

3.20.5.11 Flight Training Elements

1. Pilots will practice the following maneuvers in the simulator, with some exercises potentially combined for efficiency:
    a. Low-Visibility Takeoff:
        i. Normal takeoff under minimum authorized RVR conditions.
        ii. Rejected takeoff before V1 speed (including engine failure).
        iii. Continued takeoff despite failures (engine, critical failures affecting lateral control).
        iv. Approaches and Landings:
        v. Normal landings at lowest CAT II and CAT IIIA visibility minima.
        vi. Missed approach from Decision Height or Alert Height (as applicable).
        vii. Rejected landing from low altitude with potential touchdown.
    b. Failure Management:
        i. Various aircraft and ground system failures (may be combined with other maneuvers).
        ii. Engine failure during approach.
    c. Low-Visibility Operations:
        i. Manual rollout under low visibility conditions at applicable minima.
    d. Challenging Conditions:

i. Landings at limiting CAT IIIA wind, crosswind components, and runway surface friction.

3.20.5.12 Task Sharing and Competency

1. Pilot Flying (PIC): The Pilot in Command (PIC) will be in control of the aircraft and demonstrate proficiency in the following approaches and landings using the Full Flight Simulator:

   a. Low-Visibility Conditions:

      i. One fully automated approach and landing (touch and go or full stop) simulating a very low visibility situation (CAT IIIA minima).

      ii. One approach using the Instrument Landing System (ILS) for guidance with a manual landing, simulating a low visibility situation (CAT II minima).

      iii. One fully automated approach with a simulated engine failure during the approach to very low visibility conditions (CAT IIIA minima), followed by a missed approach (go-around).

      iv. One approach to very low visibility conditions (CAT IIIA minima) reaching a decision height of 50 feet with no visual contact with the runway, followed by a missed approach (go-around) with a simulated engine failure during the go-around.

   b. Rejected Takeoffs:

      i. One rejected takeoff at low speed before reaching the decision speed (V1).

      ii. One rejected takeoff at high speed near the lift-off speed (Vr) with a simulated engine failure.

      iii. Pilot Monitoring (SIC): The Second in Command (SIC) will be responsible for monitoring the pilot flying and demonstrate the ability to:

      iv. Identify and recognize any malfunctions or system failures that occur during the flight.

      v. Call out corrective actions based on the identified failures and assist the pilot flying with completing the appropriate procedures from the checklist.

3.20.5.13 Initial Qualification

Initial qualification shall be based on Training to competency as mentioned above.

3.20.5.14 OE Under Supervision

One aircraft AUTOLAND operation under supervision is required during OE after the simulator phase of LVO Training.

3.20.5.15 Recurrent Qualification

3.20.5.15.1 Recurrent Ground Training

1. Annual refresher training:

2. Reviews key topics from initial qualification for continued proficiency.
3. Focuses on crewmember duties specific to their role.
4. Key areas of focus:
5. Updates on program changes, aircraft equipment/procedures.
6. Analysis of relevant incidents/occurrences.
7. Refreshing memory on rarely encountered modes/procedures (e.g., failure conditions).

3.20.5.15.2 Recurrent Flight Training

1. Maintaining Proficiency in Low Visibility Operations: To maintain competency in CAT landings and low-visibility takeoffs, training should cover the maneuvers listed in Initial Qualification and include:
    a. Maintaining Currency: Pilots without recent experience (real or simulated) in CAT II/IIIA operations will perform at least one CAT IIIA and one CAT II approach to a landing.
    b. Go-Around Training: One practice approach requiring a missed approach (go-around) from a low altitude below the Alert Height or Decision Height will be included.
    c. Engine Failure on Rejected Takeoff: Pilots will practice at least one rejected takeoff at the lowest approved minima, simulating an engine failure near but before reaching the decision speed (V1).

3.20.5.16 Recency of Experience

1. Maintaining Proficiency with Landing Systems:
    a. Automatic Landing Systems: Pilots who haven't performed automatic landings in the aircraft within the last year, need to practice automatic landing system operation and procedures during training or checks (aircraft or simulator) at least annually.
    b. Manual Flight Guidance Systems: Pilots who haven't used a manual flight guidance system for landings or takeoffs in the aircraft within the last 90 days, need to be exposed to its operation, procedures, and practical use during training or checks (at least once every 90 days).

3.20.5.17 Re-qualification

1. Re-qualification for CAT Landings and Takeoffs:
    a. Pilots re-qualifying for CAT II/IIIA landings or low-visibility takeoffs will refresh their knowledge on topics covered in initial ground training. This ensures they understand the procedures necessary to perform their assigned duties.
    b. For pilots who lost their qualification due to missing recurrent training, proficiency checks, or line checks, refer to the dedicated requalification chapter in this manual for curriculum details.

3.20.6 Data Link Communications Training (FANS)

3.20.6.1 Applicability

Pilots will receive training on data link services as part of their initial, transition, upgrade, recurrent, requalification, differences, or stand-alone qualification programs, depending on their specific needs.

3.20.6.2 Objectives

1. Data Link Operations: Equip pilots with the knowledge (concepts, systems, procedures, and skills) needed to understand and respond to data link communication clearances and advisories during flights using FANS (including CPDLC and ADS-C/B).
2. Human Factors in Data Link: Identify and address potential human factor challenges for pilots interacting with data link systems. This includes issues like increased head-down time, maintaining situational awareness, and potential delays in response times exceeding Required Communication Performance (RCP) specifications.

3.20.6.3 Training Aids

1. Class Room Lectures/CBT
2. Hands-on Training

3.20.6.4 Training Devices

Data Link Communication-equipped flight training devices or simulators, or by using suitable CBI

3.20.6.5 Ground and Flight Training Curriculum

3.20.6.5.1 Pilot Knowledge Training/Subject Areas Training

1. Pilot Response Protocols: Learn how to respond to data link messages using appropriate terms like "ROGER" (acknowledged), "WILCO" (will comply), "UNABLE" (cannot comply), or "STANDBY" (need more time).
2. Message Details: Understand the message elements used in different flight environments (ground, oceanic, en route) including terminology, abbreviations, and formatting conventions.
3. Performance Requirements: Grasp the concept of Required Communication Performance (RCP) and Required Surveillance Performance (RSP) and the associated performance standards expected.
4. Terminology and Technology: Learn key data link communication terms like Controller-Pilot Data Link Communication (CPDLC) and Automatic Dependent Surveillance-Contract (ADS-C) reporting contracts.
5. Data Link Charts: Interpret charts that depict available data link communication services in different regions.

6. Reduced Separation Procedures: Understand how reduced separation standards are implemented and the associated data link communication system requirements to meet RCP-240 and RSP-180 standards (or any other applicable performance requirements for your routes).
7. Data Link System Basics: Gain a working knowledge of data link communication system theory as it relates to operational use.
8. Data Link Operations: Train on procedures for using data link communication services in various flight scenarios.
9. Performance Monitoring: Learn to identify both nominal (expected) and unacceptable data link performance.
10. Normal vs. Non-Normal Use: Distinguish between normal and non-normal data link communication procedures.
11. Event Reporting: Understand data link communication event reporting procedures, including proper assessment, common reasons to report, and reporting processes for different airspace regimes (oceanic, remote continental, domestic).
12. Aircraft Manual Limitations: Review limitations related to data link systems as outlined in the Aircraft Flight Manual (AFM) and its supplements.
13. Crew Resource Management (CRM): Practice effective CRM techniques for independent message verification, discussion, and agreeing on actions related to data link communications.
14. Equipment Management: Understand Minimum Equipment List (MEL) requirements, deferrable items, and associated procedures for data link systems.
15. Human Factors: Learn about human factors specific to the operating environment and potential challenges when interacting with data link equipment.
16. Flight Plan Designators: Practice using the correct flight plan designators for data link operations in different airspace regimes (domestic, oceanic, remote continental).

Note: For subsequent ground training, only the new, revised, or emphasized items need be addressed.

3.20.6.5.2 Pilot Procedural Training Items

1. Controls & Limitations: Learn the proper use of data link communication controls, following established procedures and understanding system limitations.
2. System Login & Recovery: Practice login and notification procedures for data link systems, including how to re-establish connection if network login is lost.
3. Display Features: Understand how to interpret and utilize various features on the data link display.
4. Weather & Route Management: Learn how to manage weather deviations, offsets, and waypoint sequencing using data link functionalities.
5. Advisories & Alerts: Become familiar with receiving and interpreting advisories and system annunciations.

6. Failure Response: Train on how to respond promptly and correctly to data link communication failures.
7. Troubleshooting Techniques: Develop skills to recognize common data link communication system failures specific to your air carrier or operator.
8. Non-Standard Messages: Learn how to interact appropriately with Air Traffic Control (ATC) when receiving unacceptable data link messages.
9. Crew Resource Management (CRM): Practice effective CRM techniques for independent message verification, discussion, and agreeing on actions related to data link communications.
10. Message Handling: Understand how to accept, receive, reject, or cancel data link messages.
11. Message Storage & Retrieval: Learn how to store and retrieve data link messages for future reference.
12. Message Loading & Sending: Train on procedures for loading messages into appropriate flight management systems (FMS), formulating, and sending messages as needed.
13. Departure Procedures: Be aware that departures and departure transitions cannot be loaded via uplink and must be manually entered into the FMS based on the Departure Clearance (DCL).
14. FMS Requests: Learn how to load message requests from the FMS, such as flight plan waypoints, for transmission via data link (if applicable).
15. Communication Management: Understand how to manage the overall data link communication system.
16. System Startup & Shutdown: Train on procedures for establishing and terminating data link system operation.
17. Radio Frequency (RF) Switching: Learn how to switch between different radio frequencies (if pilot-controllable) for data link communication.
18. Carrier-Specific Procedures: Be familiar with any specific procedures or functionalities related to your air carrier's data link implementation or unique aircraft capabilities.
19. Message Set Details: Understand the applicable message sets you will encounter, including expected transmission times, failure indications, and system constraints and limitations.
20. CRM & Data Link Communication: Apply effective CRM principles when responding to data link communication exchanges.
21. Operational Modes: Become familiar with different data link communication modes of operation.
22. Normal vs. Non-Normal Procedures: Distinguish between normal and non-normal pilot operating procedures for data link use.
23. Conditional Clearances: Learn how to handle conditional clearances received via data link, including adhering to specific conditions or restrictions such as changing flight levels based on time or location.

3.20.6.5.3 Recurrent Training

Maintaining Data Link Proficiency: After completing initial data link communication training, pilots will participate in recurrent training programs that include refresher elements on data link communication procedures.

3.20.7 Low Level Wind Shear

GACAR §121.859(d), §121.883

3.20.7.1 Applicability

1. As part of Initial Cadet/New hire, Initial Equipment, Upgrade, Transition, and Recurrent ground and flight Training and Checking.

3.20.7.2 Objectives

1. Equip FDC crews to prevent windshear accidents and incidents through targeted education, training, and checking. (This emphasizes equipping crews with knowledge and skills)
2. Minimize windshear risks for FDC flights with comprehensive crewmember education, training, and checking programs. (This focuses on minimizing the risk)
3. Enhance FDC safety by prioritizing windshear prevention through crew education, training, and checks. (This highlights the safety benefit)

3.20.7.3 Ground Training Curriculum

3.20.7.3.1 Objectives

To provide FDC crewmembers required education and information on various aspects of Low Level Windshear.

3.20.7.3.2 Method Of Instruction

1. Lectures/CBT
2. Audio-Visual Presentations

3.20.7.3.3 Training Aids

Handouts Pilot Windshear Guide – relevant portions

3.20.7.3.4 Training Devices

None

3.20.7.3.5 Ground Training Segments

1. Segment 1: Understanding the Threat

a. **Windshear Avoidance Strategies:** Learn company policies and best practices for avoiding windshear encounters.

b. **Low-Level Wind Shear Alert System (LLWAS) Decision Making:** Practice using the LLWAS decision tree to determine appropriate course of action based on windshear alerts.

c. **Recognizing Windshear:** Develop skills to identify and assess potential and actual windshear conditions.

d. **Types of Windshear:** Understand the characteristics of microbursts and non-convective windshear.

e. **Global Windshear Risk Areas:** Be aware of areas worldwide with a high risk of low-level windshear activity.

2. Segment 2: Responding to Windshear

a. **Low-Speed Flight Management:** Master low-speed flight control techniques essential for windshear recovery.

b. **General Windshear Recovery Maneuvers:** Train on general (aircraft-agnostic) windshear recovery procedures.

c. **Automation and Flight Guidance Systems in Windshear:** Learn the appropriate use of autopilot and flight guidance systems during windshear encounters.

d. **Windshear During Takeoff, Landing, and Go-Arounds:** Practice windshear recovery techniques for various flight phases (before and after V1, landing, missed approach).

e. **Predictive Windshear System Utilization:** Understand how to utilize and interpret information from predictive windshear systems (if applicable).

3. Segment 3: Staying Informed and Learning from Experience

a. **Limitations of LLWAS:** Recognize the limitations of LLWAS ground warning equipment.

b. **Understanding TAF and PIREP Information:** Learn to interpret Terminal Aerodrome Forecasts (TAFs) and Pilot Reports (PIREPs) for windshear risk assessment.

c. **Learning from Past Incidents:** Analyze real-world windshear accidents to identify common causes and preventive measures.

3.20.7.3.6 Ground Training Checking and Testing

1. The following knowledge areas will be tested to ensure FDC crewmember proficiency in low-level windshear (LLWS) avoidance:

a. LLWS Avoidance Strategies: Evaluate crew understanding of the importance of avoiding known LLWS areas.

b. LLWS Risk Assessment: Assess pilot ability to assess the probability of encountering LLWS based on available weather information.

c. LLWS Recognition: Test crewmember knowledge of the signs and symptoms that indicate the presence of LLWS.

3.20.7.4 Flight Training Curriculum

3.20.7.4.1 General

For purposes of efficient simulator time management, this Flight Training segment may be part of a Flight Training segment of Initial Equipment, Transition, Upgrade, Recurrent or requalification Training Curriculum.

3.20.7.4.2 Objectives

1. Early Windshear Detection: Train pilots to identify the onset of severe windshear using available flight instruments.
2. Effective Crew Coordination: Enhance crew communication and coordination during windshear encounters to optimize decision-making and recovery actions.
3. Windshear Recovery Maneuvers: Equip pilots with the skills to effectively utilize pitch, power, and aircraft configuration adjustments to recover from inadvertent windshear encounters.

3.20.7.4.3 Prequalification Requirement

FDC shall have qualified the LLWS Ground Training Curriculum before being assigned LLWS Flight Training.

3.20.7.4.4 Method of Instruction

Simulator Training

3.20.7.4.5 Training Aids

1. Applicable Aircraft Flight Manual
2. Applicable Flight Instructors Handbook

3.20.7.4.6 Training Devices

Approved Aircraft Simulator

3.20.7.4.7 Flight Training Segments

1. Windshear Training Scenario: Altitude: This training will be conducted at a low altitude below 500 feet AGL to simulate real-world windshear encounters.
2. Windshear Recognition Modules: Turbulent vs. Non-Turbulent Windshear: Pilots will train on recognizing windshear with and without accompanying turbulence, helping them identify the threat effectively.

3. Windshear Recovery Maneuvers: Recovery procedures will be practiced according to the Aircraft Flight Manual (AFM) for various flight phases:
    a. Takeoff before VR (decision speed)
    b. Takeoff after VR (lift-off)
    c. Approach

3.20.7.4.8 Flight Training Checking and Testing

1. This check will evaluate the FDC ability to:
    a. Identify Windshear Events: Assess the FDC's competence in recognizing the signs and symptoms of windshear using available information and flight instrument indications.
    b. Perform Windshear Escape Maneuvers: Evaluate the FDC's skill in executing the appropriate windshear escape maneuver according to the Aircraft Flight Manual (AFM) procedures and industry best practices.

3.20.7.5 Qualification Requirements

In accordance with GACAR, FDC must complete training and evaluation activities as mandated within the relevant training program curriculums. This may involve participation in the full curriculum, or specific modules as defined by the applicable program category.

3.20.8 ACAS-II Training

GACA part 121 Appendix B

3.20.8.1 Applicability

ACAS qualification must be accomplished for the specific aircraft type. Qualification during initial, Cadet, Initial New Hire, Initial Equipment, transition, recurrent, re-qualification, and upgrade ground and flight training and checking programs with appropriate differences.

3.20.8.2 Objectives

1. This training program aims to equip FDC with the following competencies related to the Traffic Collision Avoidance System (TCAS):
    a. Knowledge Development: Gain a thorough understanding of TCAS concepts, systems, and operational procedures.
    b. Skill Development: Enhance cognitive, procedural, and motor skills necessary to effectively respond to TCAS advisories in a timely and accurate manner.

3.20.8.3 Method of Instruction

1. Classroom Lectures/CBT
2. Video

3. Simulator Training

3.20.8.4 Training Aids

As Applicable

3.20.8.5 Training Devices

Aircraft Simulator

3.20.8.6 TCAS Ground Training Curriculum

3.20.8.6.1 General Concepts of TCAS Operation

1. The meaning of TAs and preventive versus corrective RAs;
2. Increase, reversal, crossing, and weakened RAs;
3. That TCAS II assures separation from Mode C equipped aircraft;
4. The detection and protection provided by TCAS against altitude reporting and non-altitude reporting intruders;
5. That the system detects multiple aircraft;
6. TCAS-to-TCAS coordination;
7. The potential impact of not following RAs;
8. TCAS surveillance range versus display range;
9. When an intruder will not be displayed;
10. TCAS on ground performance; and
11. The continued applicability of the see-and-avoid concept.

3.20.8.6.2 Expected FDC Response

1. Pilot response to TAs, RAs,
2. Use of displayed traffic information to establish visual contact, and
3. Constraints on maneuvering based solely on TA's.

3.20.8.6.3 TCAS General Limitations

1. System-Specific Limitations:
    a. TCAS is unable to detect and provide advisories for aircraft not equipped with transponders.
    b. No Resolution Advisories (RAs) are issued for nearby traffic without altitude reporting transponders.
    c. include other relevant system limitations as applicable to your specific aircraft types.

2. Operational Limitations:

   a. Certain RAs may be inhibited at specific altitudes due to pre-programmed parameters.

   b. Aircraft performance limitations may restrict the ability to comply with all RAs (e.g., following an engine failure).

   c. Emphasize the importance of appropriate responses to RAs during limiting performance conditions, such as heavy weight takeoffs or maximum en-route altitude for a given weight.

3.20.8.6.4 ATC Communication and Coordination

Communication and coordination with ATC related to or following a TCAS event, when to contact ATC, and accepted TCAS phraseology.

3.20.8.6.5 TCAS Equipment Components Controls, Displays, Audio Alerts, and Annunciations

1. This training component will equip FDCs with a comprehensive understanding of TCAS II through classroom instruction covering the following:

   a. TCAS Terminology and Symbology: Master the relevant terminology and symbols used in TCAS displays and communication.

   b. TCAS System Operation: Gain a thorough understanding of how TCAS II functions, including its operational principles and limitations.

   c. Optional Controls and Display Features: Familiarize FDCs with any non-essential controls and display features available on their specific aircraft TCAS system.

   d. Air Carrier-Specific Considerations: Address any unique features or functionalities related to your air carrier's implementation of TCAS II.

3.20.8.6.6 Interfaces and Compatibility with Other Aircraft Systems

Training should discuss the role of the Mode S transponder with a correct, discreet address installed, radar altimeter inputs to TCAS, and weather radar/EFIS interfaces, including any items particular to an air carrier’s implementation or unique to its system.

3.20.8.6.7 Aircraft Flight Manual (AFM) Information

AFM provisions should be addressed, including information on TCAS modes of operation; normal and atypical FDC operating procedures; and response to TAs, RAs, and any AFM limitations.

3.20.8.6.8 MEL Operating Provisions

MEL provisions for dispatch with a TCAS system or component inoperative.

3.20.8.6.9 Pilot Response

Appropriate pilot response to TCAS RAs and TAs, ATC clearance compliance, nuisance alerts, and other such issues.

3.20.8.6.10 TCAS Event Reporting

The air carrier's TCAS event reporting policies for FDC.

3.20.8.6.11 Reporting TCAS Malfunctions

FDC procedures for reporting TCAS malfunctions or irregularities, if not otherwise addressed by routine maintenance procedures of that operator.

3.20.8.7 Required Proficiency

3.20.8.7.1 System Operation

1. Objective: Demonstrate a thorough understanding of TCAS II functionalities to ensure safe and effective operation.
2. Criteria:
    a. Surveillance:
        i. Explain how TCAS II utilizes its transponder to interrogate and receive data from nearby transponder-equipped aircraft within its nominal operational range (typically 14 nautical miles).
        ii. Discuss potential factors that may reduce TCAS surveillance range, such as a high concentration of ground interrogators or other TCAS II systems in the area (as relevant to GACAR guidance).
    b. Collision Avoidance:
        i. Differentiate between Traffic Advisories (TAs) and Resolution Advisories (RAs) issued by TCAS
        ii. TAs can be issued for any transponder-equipped aircraft with Mode C capability, regardless of altitude reporting functionality.
        iii. Understand that RAs providing vertical guidance are only issued for aircraft with active altitude reporting and are coordinated with other TCAS II systems to avoid conflicting instructions.

3.20.8.7.2 Advisory Thresholds

1. Objective: Demonstrate knowledge of the criteria for issuing TAs and RAs.
2. Criteria:
    a. The pilot must be able to demonstrate an understanding of the methodology used by TCAS to issue TAs and RAs and the general criteria for the issuance of these advisories to include:
        i. TCAS advisories are based on time to Closest Point of Approach (CPA) rather than distance. The time must be short and vertical separation must be small, or projected to

be small, before an advisory can be issued. The separation standards provided by Air Traffic Services are different from the miss distances against which TCAS issues an alert.

ii. Thresholds for issuing a TA or RA vary with altitude. The thresholds are larger at higher altitudes.

iii. The TA time to CPA threshold (trigger point) varies from 15 to 48 seconds before the projected CPA and the RA time to CPA threshold varies from 15 to 35 seconds.

iv. RAs are chosen to provide the desired vertical miss distance at CPA. As a result, RAs can instruct a climb or descent through the intruder aircraft's altitude.

3.20.8.7.3 TCAS Limitations

1. Objective: To verify the pilot is aware of the limitations of TCAS.
2. Criteria: The pilot must demonstrate a knowledge and understanding of the TCAS limitations including:
   a. TCAS will neither track nor display non-transponder equipped aircraft, nor aircraft not responding to TCAS Mode C interrogations.
   b. TCAS will automatically fail if the input from the aircraft's barometric altimeter, radio altimeter, or transponder is lost.
   c. An intruder aircraft within 380 feet AGL (nominal value) may or may not be displayed by your TCAS (i.e., declared to be airborne or on the ground, respectively) depending upon whether the intruder is Mode S or ATCRBS Mode C equipped and whether your TCAS-equipped aircraft is airborne or on the ground.
   d. TCAS may not display all proximate transponder-equipped aircraft in areas of high density traffic.
   e. Because of design limitations, the bearing displayed by TCAS is not sufficiently accurate to support the initiation of horizontal maneuvers based solely on the traffic display.
   f. Because of design limitations, TCAS will not track intruders with a vertical speed in excess of 10,000 fpm. In addition, the design implementation may result in some short-term errors in the tracked vertical speed of an intruder during periods of high vertical acceleration by the intruder.
   g. Ground Proximity Warning System (GPWS) warnings and windshear warnings take precedence over TCAS advisories. When either a GPWS or windshear warning is active, TCAS aural annunciations will be inhibited.

3.20.8.7.4 TCAS Inhibits

1. Objective: Verify the pilot's awareness of situations where specific TCAS functions are automatically inhibited to ensure safe and effective operation.
   a. Criteria:

i. Altitude-Based Inhibitions:

1) Understand that Increase Descent RAs are inhibited below a specific altitude (e.g., 1,450 feet AGL ± 100 feet, as applicable to your aircraft type).

2) Explain that Descend RAs are inhibited at a lower altitude than Increase Descent RAs (e.g., 1,100 feet AGL ± 100 feet).

3) Recognize that all RAs are inhibited below a critical altitude (e.g., 1,000 feet AGL ± 100 feet).

ii. Aural Annunciation Inhibition:

1) Be aware that all TCAS aural warnings, including those for TAs, are inhibited below a specific low-altitude threshold (e.g., 500 feet AGL).

iii. Climb/Increase Climb RA Considerations (if applicable):

1) For your specific aircraft type, determine if Climb and Increase Climb RAs are inhibited at the certified ceiling.

2) If your aircraft provides Climb and Increase Climb RAs at the certified ceiling, emphasize the importance of following these commands.

3.20.9 RVSM Training

GACA E-Book, VOL 4 Chapter 21, 4.21.8.1.(B)

3.20.9.1 Applicability

All FDC Shall be provided RVSM Training as part of Initial Cadet, Initial New Hire, Initial Equipment, Upgrade, Transition, Recurrent training and evaluation.

3.20.9.2 Objective

To train FDC in the Operating Practices and procedures of operations in RVSM airspace.

3.20.9.3 Method of Instruction

Classroom Lectures

3.20.9.4 Training Aids

As Applicable

3.20.9.5 Training Devices

None

3.20.9.6 Curriculum

1. This curriculum key areas where standardization is crucial for safe and efficient operations in Reduced Vertical Separation Minimum (RVSM) airspace. Training programs and operational procedures should incorporate the following elements, with some potentially covered by existing practices:
    a. Essential Procedures:
        i. Flight Planning
        ii. Aircraft Preflight Procedures
        iii. Entry Procedures for RVSM Airspace
        iv. In-flight Procedures within RVSM Airspace
        v. Post-Flight Procedures
        vi. Crew Coordination and Situational Awareness:
        vii. Standard ATC Phraseology for Each Operational Area
        viii. Crew Cross-Checking for Accurate and Timely ATC Clearance Compliance
    b. Equipment Management:
        i. Sirection Traffic, Turns)
    c. Aircraft Systems:

i. Characteristics of Altitude Capture Systems and Potential Overshoots

ii. Impact of RVSM on TCAS Operations

d. TCAS/ACAS Operations in RVSM:

i. Specific Procedures and Characteristics for RVSM

e. Integrated Systems:

i. Relationship Between Altimetry, Automatic Altitude Control, and Transponders (Normal and Abnormal Situations)

f. Additional Considerations:

i. Aircraft Operating Restrictions (if applicable)

ii. Wake Turbulence Procedures

iii. Track Offset Procedures for Wake Turbulence Mitigation (if applicable)

3.20.10 PBN Training

GACA E-Book, VOL 4, Chapter 21, 4.21.3.19(E), GACA e-Book, VOL 4, Chapter 25, 4.25.1.11 (D)(3)

3.20.10.1 Applicability

1. All FDCs will receive Performance-Based Navigation (PBN) training as part of their initial and ongoing training programs. This includes:
    a. Initial Training: Cadet, New Hire, Initial Equipment, Upgrade, and Transition programs will cover Area Navigation (RNAV) methods applicable to Required Navigation Performance (RNP) airspace.
    b. Recurrent Training and Currency: Recurrent training and Line Checks will incorporate RNAV equipment and RNP procedures to maintain pilot proficiency and fulfill currency requirements.

3.20.10.2 Objectives

1. This training program aims to equip Flight Deck Crew (FDC) with the knowledge and skills necessary to utilize the aircraft's RNP/RNAV system effectively in compliance with required navigation performance standards. The training will cover procedures and functionalities for the following airspace types and RNP levels:
    a. En-Route/Oceanic: RNP 10, RNP 4, RNP 2, RNAV 5 (B-RNAV, RNP 5)
    b. Arrival & Departure: RNAV 1 and 2, RNP 0.3, RNP 1, RNP 2

3.20.10.3 Program Schedule

As specified in the applicable training phase.

3.20.10.4 Method of Instruction

1. Classroom Lecture
2. Hands-on Training

3.20.10.5 Training Devices

Classroom

3.20.10.6 Curriculum

This training program covers Performance-Based Navigation (PBN) procedures and functionalities to ensure safe and effective operation in RNP airspace. The modules include:

1. PBN Fundamentals (a, b):
    a. Reference materials: Advisory Circulars (AC) 90-100 and 90-105 (current versions).

b. Background knowledge: Understanding PBN concepts, aircraft equipment suffixes (e.g., RNAV 5, RNP 1), and their proper use.

2. RNP Chart Interpretation and Procedures (c):

a. Waypoint types (fly-over, fly-by) and path terminators.

b. Required navigation equipment for RNAV routes, Departure Procedures (DPs), and Standard Terminal Arrival Routes (STARs) (e.g., DME/DME/IRU, GPS/GNSS).

c. RNAV phraseology, including "Descend via" clearances and using the Aeronautical Information Manual (AIM) for arrival procedures.

3. RNAV System Operation (d):

a. Levels of automation, mode annunciations, alerts, interactions, and system reversions.

b. Integration with other aircraft systems.

c. Meaning and handling of route discontinuities.

d. Monitoring procedures for each flight phase (e.g., monitoring progress page) and position reporting.

e. Navigation sensors used (DME, IRU, GPS/GNSS), prioritization, and weighting logic.

f. Turn anticipation considering speed and altitude.

g. Interpreting electronic displays and symbols.

4. RNAV Equipment Procedures (e):

a. Verifying data currency, successful self-tests, and system position initialization.

b. Retrieving and flying DPs/STARs with transitions.

c. Adhering to speed/altitude constraints and runway changes associated with DPs/STARs.

d. Verifying waypoints and flight plan programming.

e. Performing manual/automatic runway updates and takeoff point shifts (if applicable).

f. Flying direct to waypoints, flying courses/tracks, intercepting courses/tracks.

g. Being vectored off and rejoining procedures.

h. Determining cross-track error and deviation.

i. Inserting/deleting route discontinuities, removing/reselecting navigation sensor inputs.

j. Confirming exclusion of specific navigation aids (if required).

k. Inserting/deleting lateral offsets, changing arrival/alternate airports.

l. Inserting/deleting holding patterns.

m. Understanding operator-recommended automation levels for different flight phases and workload management.

n. Contingency procedures for RNAV failures and navigation errors.

5. **Required Navigation Performance (RNP) (f):**

a. RNP types: En-route/Oceanic (RNP 10, 5, 4, 2), Arrival/Departure (RNAV 1 & 2, RNP 0.3, 1, 2).

b. RNP operational requirements, navigational performance expectations.

c. Normal, abnormal, and contingency procedures for RNP operations.

d. Navigation and communication equipment/database requirements for RNP airspace.

3.20.11 Problematic Use of Psychoactive Substances – Prevention and Safety Education

GACAR Part 7

3.20.11.1 Applicability

1. All Flight Deck Crew (FDC) will receive training on the Problematic Use of Psychoactive Substances – Prevention and Safety Education. This training will be included in:

a. Basic Indoctrination Training (Initial)

b. Annual Recurrent Training

3.20.11.2 Objectives

To create FDC awareness of Alcohol and Drug abuse and related Regulations

3.20.11.3 Method of Instruction

Classroom Lectures/CBT

3.20.11.4 Training Aids

Presentations

3.20.11.5 Training Devices

Classroom Projector

3.20.11.6 Curriculum

All Flight Deck Crew (FDC) will be familiarized with the following resources through an educational program:

1. Education Program:

a. **Informational Material:** This includes readily available materials that address the problematic use of psychoactive substances within the aviation workplace. The materials will detail potential consequences of using such substances while performing safety-sensitive functions.

b. **Company Policy:** The program will ensure FDC are aware of Mukamalah Aviation's policy on problematic psychoactive substance use in the workplace, including details on potential consequences.

2. **Training Program:** In addition to the education program, FDC will participate in mandatory training that covers the following elements:

a. **Health, Safety, and Workplace Impacts:** The training will explore the effects and consequences of psychoactive substance use on individual health, safety, and the overall work environment.

b. **Identifying Potential Problems:** The program will equip FDC with the ability to recognize manifestations and behavioral cues that may indicate psychoactive substance use or abuse.

c. **Regulatory Requirements:** The training will emphasize the relevant regulations outlined by the General Authority of Civil Aviation (GACAR) that prohibit the problematic use of psychoactive substances.

d. **Training Documentation:** For record-keeping purposes, all training provided to FDC will be documented.

3.20.12 Ground De-Icing/Anti-Icing

3.20.12.1 Applicability

1. Initial Training: Included in Basic Indoctrination Training (Initial Cadet, New Hire, Initial Equipment, Upgrade, Transition, Requalification).

2. Recurrent Training: Integrated into Recurrent ground training curriculum.

3.20.12.2 Objectives

1. This program equips Flight Deck Crew (FDC) and Dispatchers with the knowledge and skills necessary to effectively implement Mukamalah Aviation's Ground Deicing/Anti-Icing Program.

3.20.12.3 Method of Instruction

1. Classroom Lectures/CBT

2. Visual Aids Videos

3.20.12.4 Training Aids

Mukamalah Aviation Aircraft De-ice/Anti-ice Manual (ADAM)

3.20.12.5 Training Devices

None

3.20.12.6 Curriculum

FCM shall be trained and qualified in the following subjects.

Note: Cold Weather Operation training is covered under Adverse Weather training.

This program equips Flight Deck Crew (FDC) and Dispatchers (if applicable) with the knowledge and skills necessary to effectively implement Mukamalah Aviation's Ground Deicing/Anti-Icing Program.

1. Training Topics:
    a. Effects of Frozen Contaminants on Aircraft Surfaces (All):
        i. Loss of lift
        ii. Increased drag and weight
        iii. Decreased control
        iv. Tendency for rapid pitch-up and roll-off during rotation
        v. Stall at lower angles of attack
        vi. Buffet or stall before stall warning activation
        vii. Aircraft specific areas (refer to FCM/Aircraft Manuals)
        viii. Engine foreign object damage potential
        ix. Ram air intakes
        x. Instrument pickup points
        xi. Leading Edge Device (LED) vs. non-LED aircraft considerations
        xii. Airworthiness Directives (ADs) and specific inspections
        xiii. Winglets
2. Aircraft Ground Icing Conditions (FCM): Procedures for reporting in-flight icing encounters to personnel responsible for Mukamalah Aviation's deicing/anti-icing program. This is crucial when short turnaround times (e.g., 30 minutes or less) are anticipated with freezing ground temperatures.
    a. Frost, including hoarfrost
    b. Freezing precipitation (snow, freezing rain, freezing drizzle, or hail)
    c. Freezing fog
    d. Rain or high humidity on a cold soaked wing
    e. Rain or high humidity on cold soaked wing fuel tanks
    f. Under-wing frost (deicing/anti-icing may not be required within certain limits - refer to FCM/Aircraft Manuals)
    g. Fluid failure identification (Ground Crew/FCM)

3. Location-Specific Procedures (Ground Crew/FCM, as applicable): Mukamalah Aviation's approved procedures for deicing/anti-icing at your base location.
4. Communication Procedures (All): Effective communication between FDC, ground personnel, Air Traffic Control (ATC), and company station personnel.
5. Obtaining Current Weather Information (FCM/Flight Followers): Methods for accessing the most up-to-date weather information to support deicing/anti-icing decisions.
6. Deicing/Anti-icing Fluid Characteristics (FCM/Ground Crew/Dispatchers):
    a. General fluid descriptions
    b. Composition and appearance
    c. Differences between Type I, Type II, and Type IV fluids
    d. Purpose for each type
    e. Deicing vs. anti-icing fluids
    f. Capabilities of each fluid type
    g. Approved fluids for Mukamalah Aviation (e.g., SAE, ISO)
    h. Fluid-specific information from the fluid or aircraft manufacturer
    i. Fluid temperature requirements (hot vs. cold)
    j. Properties associated with infrared deicing/anti-icing
    k. Health, safety, and first-aid procedures (Ground Crew)
    l. Environmental considerations (Ground Crew)
    m. Fluid selection (FCM/Ground Crew)
    n. Unusual flying qualities, such as the need for additional takeoff rotation force (FCM)
7. Deicing/Anti-icing Policies and Procedures (FCM/Ground Crew):
    a. Inspection of critical surfaces before deicing/anti-icing
    b. Clear ice precautions
    c. Pre-flight check requirements (FCM/Ground Crew)
    d. Determining whether deicing or anti-icing is required
    e. Deicing/anti-icing location
    f. Communication before deicing/anti-icing
    g. General deicing/anti-icing precautions
    h. Aircraft-specific requirements
    i. Deicing requirements: Effective removal of frost, snow, and ice
    j. Anti-icing requirements: Preventative measures and application procedures

k. Deicing/anti-icing methods: One-step, two-step, and application guidelines

l. Post deicing/anti-icing checks: Flight control check and communication after deicing/anti-icing

8. Holdover Time (HOT) Tables (FCM/Ground Crew):

a. Definition of HOT

b. When HOT begins and ends

c. Limitations and cautions associated with HOTs

d. HOT data source

e. Relationship of HOT to fluid concentration and type

f. Precipitation category (fog, drizzle, rain, snow)

g. Precipitation intensity

h. Determining a specific HOT for moderate or light weather conditions

i. Adjusting HOT for changing weather conditions

9. Verification Procedures:

a. Post-Deicing Check (Ground Crew): Ensure all aircraft surfaces are free of frozen contaminants after deicing application.

b. Pre-takeoff Check (FCM): Identify representative surfaces for contamination checks.

c. **Pre-takeoff Contamination Check (Ground Crew/FCM)

3.20.13 Adverse Weather Training

3.20.13.1 Applicability

This module is included in Initial, Upgrade, Transition, Recurrent, and Requalification training programs as applicable.

3.20.13.2 Objectives

1. To train FDC in:

a. The Manufacturer's recommended Operating Practices and procedures for operations in Adverse Weather conditions.

b. Operations in Monsoon Weather.

3.20.13.3 Method of Instruction

Classroom Lectures

3.20.13.4 Training Aids

As Applicable

3.20.13.5 Training Devices

None

3.20.13.6 Curriculum

1. This training module covers procedures and considerations for safe operation in various challenging weather conditions:
    a. Runway Conditions:
        i. Ice, slush, snow, and contaminated surfaces
        ii. Heavy precipitation, wet, and contaminated surfaces
    b. Turbulence:
        i. General turbulence management
        ii. Severe turbulence avoidance strategies
    c. Convective Weather:
        i. Thunderstorm avoidance and precautions
        ii. Monsoon weather operations (if applicable)
    d. Cold Weather Operations:
        i. De-icing and anti-icing policies and procedures (refer to relevant sections for details)

Note: Aircraft ground icing & de-icing and Low Level Windshear Training are covered in separate modules.

3.20.14 Operations in Areas of Volcanic Ash

GACA, E-Book, VOL 4, Chapter 14, 4.14.3.5.(A) , GACA E-Book, VOL 4, Chapter 14, 4.14.13.11(A), GACA E-Book, VOL 4, Chapter 22, Section 3(c).

3.20.14.1 Applicability

As part of Initial Cadet, Initial New Hire, Initial Equipment, Upgrade, Transition, Recurrent Training and Checking Curriculum.

3.20.14.2 Objectives

1. To Train FDC in:
    a. The avoidance of known Areas of Volcanic Ash;
    b. Flight into areas of Volcanic Ash contamination;
    c. Contingency/Emergency measures.

3.20.14.3 Method of Instruction

Classroom Lectures

3.20.14.4 Training Aids

As available

3.20.14.5 Training Devices

None

3.20.14.6 Curriculum

1. This training module equips pilots with the knowledge and procedures for safe flight operations in the presence of volcanic ash.
    a. Mukamalah Aviation Policy: Understanding company guidelines for flights near or within volcanic ash contamination zones.
    b. Volcanic Ash Concentration Levels: Familiarization with different ash concentration levels and their impact on aircraft operations.
    c. Volcanic Activity Avoidance: Strategies for avoiding known areas of volcanic activity.
    d. Flight Planning: Procedures for incorporating volcanic ash information into flight planning processes.
    e. Volcanic Ash Detection: Methods for identifying and avoiding volcanic ash contamination in flight.
    f. Equipment Failures/Malfunctions: Actions to take in case of volcanic ash-related equipment failures or malfunctions.

g. Contingency Procedures: Plans for handling situations where encountering volcanic ash is unavoidable.

h. Emergency Procedures: Guidelines for responding to emergencies arising from volcanic ash contamination.

i. Information Sources:

   i. Bulletins: Staying informed through Volcanic Ash Advisory Centers (VAAC) Volcanic Ash Advisories (VAAs).

   ii. SIGMETs: Interpreting Significant Meteorological Information messages regarding volcanic ash.

   iii. Reports (PIREPs): Utilizing Pilot Reports (PIREPs) for real-time volcanic ash encounter information.

3.20.15 Initial Command Training

3.20.15.1 Applicability

Applicable to all Mukamalah Aviation FDC who are being promoted to PIC (Initial Captains).

3.20.15.2 Objective

To enhance the skills of the Trainee to act as an Mukamalah Aviation PIC.

3.20.15.3 Training Aids

As Applicable

3.20.15.4 Training Devices

None

3.20.15.5 Curriculum

1. PIC Responsibility
2. Regulations
3. Assigning Tasks
4. Problem solving
5. Prioritizing the Workload
6. Delegating Responsibilities
7. Cockpit Management
8. Communication and coordination
9. Command and Leadership
10. Situational Awareness
11. Seat Specific (Left & Right Seat) Qualification and Workload Distribution
12. Additional Review Topics

3.20.16 Route and Airports Qualification

GACAR §121.773

3.20.16.1 Applicability

As part of Initial Cadet, Initial New Hire, Initial Equipment, Upgrade, Transition, Recurrent training and evaluation.

3.20.16.2 Required Elements

1. To ensure safe and efficient flight operations, pilots shall be equipped with the following current information and knowledge relevant to the planned route and airports:
    a. Weather: Up-to-date weather information specific to the season, including forecasts and potential hazards.
    b. Navigation: Familiarity with navigation facilities available along the route and at the destination airports.
    c. Communication: Understanding of communication procedures, including those related to aerodrome visual aids.
    d. Terrain and Obstructions: Awareness of the types of terrain and potential obstructions along the route and at the destination airports.
    e. Minimum Safe Altitudes: Knowledge of the minimum safe flight levels for the planned route.
    f. Procedures: Understanding of en route and terminal area arrival/departure procedures, holding patterns, and authorized instrument approach procedures for the destination airports.
    g. Airport Characteristics: Familiarity with the airport layout, including congested areas and the physical features of each terminal area the pilot will operate in.
    h. NOTAMs (Notices to Airmen): Access to and understanding of relevant NOTAMs for the planned route and airports.
    i. Search and Rescue: Awareness of search and rescue procedures and services available in the area of operation.

3.20.16.3 Qualification

1. Pilots are required to maintain currency for instrument approaches at any airport on their route where an approach is necessary and they haven't recently landed there.
2. This currency can be achieved through the use of appropriate pictorial presentations, such as Jeppesen approach charts.

3.20.16.4 Currency

To maintain proficiency, Pilots in Command (PICs) who haven't flown a route or landed at an airport for more than 12 months must review the Jeppesen route and approach charts before serving as PIC on that route or at that airport.

3.20.17 Special Areas and Airports

GACAR §121.777 b

3.20.17.1 Applicability

1. All Pilots in Command (PICs) will receive training before operating into:
    a. Special Airports: All airports listed as special in the Operations Manual Part A (OMA).
    b. Navigation Requirements: Areas requiring specific navigation qualifications (e.g., North Atlantic Track System (NAT), Minimum Navigation Performance Specification (MNPS)/High Level Airspace (HLA).

3.20.17.2 Continued Qualification

3.20.17.2.1 Special Airports

1. General Rule: Except as provided below, Mukamalah Aviation prohibits PICs from operating to or from airports designated as requiring special qualifications unless they meet one of the following criteria within the preceding 12 months:
    a. Recent Experience: The PIC or copilot has performed a landing and takeoff at the airport while serving as a flight crewmember.
    b. Pictorial Qualification: The PIC has demonstrably qualified using acceptable pictorial resources approved by the relevant aviation authority.
2. Exception: This requirement is waived if the following minimum weather conditions exist at the airport of arrival:
    a. Ceiling: At least 1,000 feet above the published Minimum Enroute Altitude (MEA), Minimum Obstruction Clearance Altitude (MOCA), or initial approach altitude for the instrument approach procedure.
    b. Visibility: At least 5 kilometers.
3. This policy ensures PICs operating into special airports possess the necessary experience or have completed approved training using pictorial resources.
4. Specific approval processes for pictorial qualification methods may vary depending on the aviation authority

.

3.20.17.2.2 Special Areas

1. Route Requirements:
    a. PICs operating on routes or in areas mandating a specific navigation system qualification must demonstrate their competency within the preceding 12 months using a method acceptable to the relevant aviation authority. Acceptable methods include:
        i. Operational Experience: Piloting a route or area as PIC while utilizing the required navigation system.
        ii. Supervised Flight: Flying the route or area as PIC under the direct supervision of a qualified check pilot using the required navigation system.
        iii. Approved Training Program: Successful completion of a training program specifically designed for the required navigation system.

3.20.17.3 Objective

To qualify the PIC for operation into Special Areas and Airports.

3.20.17.4 Training Aids

1. Pictorials
2. Handouts (as applicable)

3.20.17.5 Training Devices

1. Classroom Instruction
2. Self-Study Material Route Training

3.20.17.6 Curriculum

1. This course curriculum adapts to the specific area, route, or airport involved by focusing on relevant topics:
    a. Operational Environment:
        i. Weather
        ii. Navigation Facilities
        iii. Communications
        iv. Terrain and Obstructions
        v. Flight Levels
    b. Procedures:
        i. Enroute and Terminal Area Procedures
        ii. Airport Characteristics (including relevant NOTAMs)

c. Additional Considerations:

i. Political Considerations (if applicable)

ii. Special Navigation Requirements (e.g., North Atlantic Track System (NAT), Reduced Vertical Separation Minimum (RVSM))

d. Training Duration:

i. The course duration will vary depending on the complexity of the specific area, route, or airport and the amount of coverage required for each topic.

3.20.18 In-Flight Medical Events Training

GACAR 121.911

3.20.18.1 Applicability

As part of Initial new hire, initial cadet, Basic Indoctrination and Recurrent Training (three year cycle)

3.20.18.2 Objective

To provide the option of treatment of serious medical events during flight time

3.20.18.3 Training Aids

Handouts (as applicable)

3.20.18.4 Training Devices

Medical Kit

3.20.18.5 Curriculum

1. This training covers the following essential elements to equip crewmembers for in-flight medical emergencies:

a. Emergency Procedures & Crew Coordination: Crewmembers will be trained on established procedures for handling medical emergencies, emphasizing effective communication and teamwork.

b. Emergency Medical Equipment: The training will familiarize crewmembers with the location, function, and proper use of emergency medical equipment, including first-aid kits and universal precaution kits.

c. Emergency Medical Kit Contents: Crewmembers will gain knowledge of the specific contents and applications of the emergency medical kit.

3.20.19 Continuous Descent Final Approach (CDFA)

GACA, E-Book, VOL 4, Chapter 21, 4.21.3.19 (H)

3.20.19.1 Applicability

As part of Initial new hire, initial Cadet Basic Indoctrination Training Concepts of Instrument Procedures and Approaches and thereafter during Recurrent Training.

3.20.19.2 Objectives

This program introduces the principles of Continuous Descent Final Approach (CDFA) and reinforces learning with practical exercises in a flight simulator.

3.20.19.3 Training Aids

Handouts as applicable

3.20.19.4 Training Devices

GACA Approved Simulator

Note: All CDFA Training shall be conducted during Simulator Briefing and Training.

3.20.19.5 Curriculum

1. Introduction: Overview of CDFA (Continuous Descent Final Approach), including background and regulatory requirements.
2. Applicability & Limitations: Exploring when and where CDFA can be used, along with any associated restrictions.
3. Chart Recognition: Identifying CDFA-designed approach charts.
4. Benefits: Understanding the advantages of CDFA, including visibility increases and fuel savings.
5. Descent Planning: Calculating derived Decision Altitude (DA) or Minimum Descent Altitude (MDA) for CDFA approaches.
6. Vertical Guidance: Strategies for maintaining vertical path control during CDFA.
7. Automation: Understanding how automation can be used (or not) during CDFA procedures.
8. Monitoring: Raw data monitoring requirements for crewmembers during CDFA.
9. Briefing & Missed Approach: Procedures for effective approach briefing and missed approach execution in a CDFA scenario.

3.20.20 Aircraft Upset Prevention and Recovery Training

3.20.20.1 Applicability

As part of the Initial New Hire, Initial cadet, Initial Equipment, Upgrade, Recurrent and Requalification Training Curriculum.

3.20.20.2 Objectives

Train the aspects of AIRCRAFT Upset Prevention and Recovery.

3.20.20.3 Method of Instruction

Classroom Lectures

3.20.20.4 Training Aids

As Applicable

3.20.20.5 Training Devices

Flight Simulator

3.20.20.6 Elements

1. Upset Fundamentals:
2. Understanding aerodynamics of upsets
3. Causes and contributing factors
4. G-awareness and energy management
5. Upset Prevention & Recovery Techniques:
6. Strategies for recognizing, preventing, and recovering from upsets (high and low altitude)
7. Mitigating system malfunctions
8. Specialized Maneuvers:
9. Training on specific upset recovery procedures, such as sick shaker response (if applicable)

3.20.21 Electronic Flight Bag (EFB) Training

3.20.21.1 Applicability

As part of the Initial Cadet, Initial New Hire, Initial Equipment, Upgrade, Transition, Recurrent Training and Checking (as applicable).

3.20.21.2 Objectives

To train FDC in the safe and efficient use of the EFB and its applications.

3.20.21.3 Method of Instruction

1. CBT.
2. Classroom Lectures.
3. Presentations.
4. Hands on training.

3.20.21.4 Training Aids

As Applicable

3.20.21.5 Training Devices

1. CBT
2. EFB Devices.

3.20.21.6 Elements

1. Introduction
2. iPad
3. Applications

3.20.21.7 Testing and Checking

1. Initial Training: During EFB training, Flight Deck Crew (FDC) will demonstrate proficiency using the device and its applications through Computer-Based Training (CBT) modules. Ground instructors will assess and sign-off on crewmembers after achieving the required level of competence.
2. Evaluation in Operations: Simulator and/or airplane checking is not required after initial training as classroom assessment is deemed sufficient. However, crewmembers will be evaluated on their practical ability to use the EFB during their next line check or simulator session.

3.20.22 Extended Envelope Training

GACAR 121.889

3.20.22.1 Applicability

As part of the Initial Cadet/New Hire, Initial Equipment (as applicable), Transition, Upgrade and Recurrent/Requalification Training (as applicable).

3.20.22.2 Objectives

To train FDC on extended envelope maneuvers on respective aircraft type as required by regulation.

3.20.22.3 Training Devices

Level C or higher FFS.

3.20.22.4 Elements Initial/Transition and Upgrade Training

Extended envelope training shall include the following maneuvers and procedures:

1. Manually controlled slow flight;
2. Manually controlled loss of reliable airspeed;
3. Manually controlled instrument departure and arrival;
4. Upset recovery maneuvers; and
5. Recovery from bounced landing.
6. Instructor-guided hands on experience of recovery from full stall and stick pusher activation (as applicable).

3.20.22.5 Elements – Recurrent Training

1. Standard Elements: Pilots must satisfactorily complete all extended envelope elements of initial training within the preceding 24 months before serving as a pilot.
2. This specific element requires completion within the preceding 36 months before acting as a pilot.

3.20.23 Instructors/Check Pilot (Simulator) Training

1. Limitations of the FSTD.
2. Instructor Operating Station (IOS) Use.
3. Minimum FSTD Equipment.
4. Review of Loss of Control In Flight (LOC-I) Events, Incidents, and Accidents.
5. Energy Management.
6. Spatial Disorientation.

7. Distraction.
8. Recognition and Recovery Strategies.
9. Recognition and Correction of Pilot Errors.
10. Type-Specific Characteristics.
11. OEM-Specific Recommendations.
12. Operating Environment.
13. Startle or Surprise.
14. Benefits of Demonstration in an FSTD.
15. Assessing Pilot Performance to Completion Standards.

3.20.23.1 Instructor/Check Pilot (Simulator) Standardization

1. Initial Standardization Validation.
2. Continuing Standardization.

3.21 CHECK PILOTS AND INSTRUCTORS

GACA§ 121.863, 121.867, 121.871, 121.875, GACA E-Book 4.20

3.21.1 General

3.21.1.1 Categories of Instructors and Check Pilots

1. Mukamalah Aviation utilizes the following terminology to categorize Flight Instructors and Check Pilots:

   a. Flight Instructor (FI): An FI is an airman designated by Mukamalah Aviation who possesses the necessary training, experience, and demonstrated ability to instruct other airmen in specific training program segments related to flight.

   b. Check Pilot (CP): A CP is a pilot nominated by Mukamalah Aviation and approved by the GACA. They possess the required training, experience, and demonstrated ability to assess and certify the knowledge and skills of other airmen. Check Pilots are authorized to conduct various evaluations, including:

      i. Proficiency check

      ii. Line checks

      iii. Supervision of pilot currency re-establishment for landings

      iv. Oversight of initial Operating Experience (OE) requirements as outlined in GACAR § 121.789

   c. Flight Instructor and Check Pilot Categories:

      i. Flight Instructor (Simulator) (FI-S): An FI-S is qualified and authorized by GACA to provide instruction solely within a Flight Simulator Training Device (FSTD) specific to a particular aircraft type.

      ii. Proficiency Check Pilot (Simulator) (PCP-S): A PCP-S is qualified and authorized by GACA to conduct flight checks or provide instruction, but only within a Flight Simulation Training Device (FSTD) for a particular airplane type.

      iii. Check Pilot - Operating Experience (OE): A Check Pilot-OE is qualified and authorized by GACA to solely supervise the initial OE in revenue operations for a specific aircraft type. They can also recommend airmen for line checks.

      iv. Line Check Pilot - All Seats (LCP-AS): A Line Check Pilot (all seats) is qualified and authorized by GACA to conduct pilot line checks from either the left/right pilot seat or the observer's seat. Additionally, they can supervise initial OE and conduct training and checking as authorized.

      v. Check Pilot - All Checks (CPC-AC): A Check Pilot-All Checks has undergone training and qualification as both a Proficiency Check Pilot (Simulator) and a Line Check Pilot (All Seats) following the Mukamalah Aviation training and qualification program outlined in

this chapter. They are authorized by GACA to conduct all checks encompassed within the pilot qualification curriculum segment of the Mukamalah Aviation training program.

3.21.1.2 General Selection Criterion

Flight Instructors' candidates are required to be individuals of the highest professional and moral standards and shall meet the general selection criteria mentioned in the OMA.

3.21.1.3 Approval Process and Training Curriculum Completion

1. All required approvals shall be coordinated and obtained by Flight Operations Training.
2. It shall be the responsibility of the respective Training Manager to ensure that all required training processes and the applicable Training Curriculum has been completed.

3.21.1.4 Initial Ground Training Requirements and Validity

1. Initial Ground Training:
    a. Applicability: This manual outlines the Initial Ground Training Segment (18 hours) required by all Flight Instructors and Check Pilots. This training is a one-time requirement.
    b. Validity: This training remains valid unless:
        i. Ineligibility within 2 years: The candidate fails to achieve Flight Instructor and/or Check Pilot qualification within 2 years of completing this training.
        ii. Unqualified for more than 3 years: A previously qualified Flight Instructor or Check Pilot remains unqualified for a continuous period exceeding 3 years.
        iii. Requalification: Flight Instructors or Check Pilots who become unqualified due to the reasons above must repeat the entire Initial Ground Training Segment outlined in this manual.

3.21.1.5 Completion of Training Records

Completion of all Training requirements for Instructors and Check Pilots, must be entered in the individual's training record maintained by Mukamalah Aviation.

3.21.1.6 Knowledge and Conduct

1. To be eligible for consideration as a Flight Instructor (FI) or Check Pilot (CP) candidate at Mukamalah Aviation, individuals must meet the following criteria:
    a. Regulatory Knowledge: Candidates must demonstrate a thorough understanding of the relevant GACA regulations and Mukamalah Aviation policies applicable to their designated crewmember positions and instructional duties.
    b. Safe Operations Expertise: Candidates must possess a proven track record of adhering to safe operating procedures relevant to their crewmember experience.

c. Favorable Record: Candidates must have maintained a positive performance record throughout their flight crewmember career.

d. Professional Conduct: Once approved, FIs and CPs are expected to consistently uphold a professional demeanor and reputation that reflects positively on both Mukamalah Aviation and GACA.

3.21.1.7 Reporting

1. This section outlines the reporting structure for Flight Instructors (FIs) and Check Pilots (CPs) at Mukamalah Aviation, specifically regarding their training and checking duties:

   a. Simulator Instructors and Check Pilots (Simulator & OE): Functional and Administrative Reporting: Report to Training Manager Flight Operations Training.

   b. Line Check Pilots (All Seats): Functional Reporting: Report to Training Manager Flying for core duties.

   c. Functional Reporting (OE Supervision): Report functionally to Training Manager when supervising Operating Experience (OE).

   d. Administrative Reporting: Maintain administrative reporting to Training Manager Flying.

3.21.1.8 Substandard Performance Procedures

1. This manual, along with the Operations Manual (OMA), outlines the policies and procedures for handling situations where an instructor or check pilot determines a flight crewmember's performance during training or a check fall below the standards required for continued safe aircraft operation.

   a. Process for Failing a Training or Check:

   b. Performance Below Standard: If an instructor or check pilot identifies a crewmember's performance as unsatisfactory, the crewmember will be unable to continue the training series or trip.

   c. Substitute Pilot Required: If the line check pilot is not qualified to replace the failing crewmember, alternative procedures, as defined in the OMA, must be followed.

3.21.2 Flight Instructors (Simulator)

GACAR §§ 121.867, 121.875, Appendix D to GACAR Part 121, E-Book Vol 4 Ch 20

3.21.2.1 Eligibility

1. Experience Requirements: As outlined in Appendix D of Part 121 (a)(3) of the Advanced Simulation Training Program, candidates must possess one of the following qualifications:
    a. Prior Instructor/Check Pilot Experience: A minimum of one year served as an instructor or check pilot in a Mukamalah Aviation approved program.
    b. Pilot-in-Command (PIC) Experience: At least one year of experience as a PIC in an aircraft type within the group the candidate intends to instruct for.
    c. Flight Instructor (Simulator) Qualifications: Mukamalah Aviation adheres to the following requirements for Flight Instructor (Simulator) positions within training programs established under this subpart, specific to the aircraft type involved: Proficiency Check Pilot (Simulator) Qualification: The candidate must meet the qualification standards for a Proficiency Check Pilot (Simulator) for the relevant aircraft type.

3.21.2.2 Limitations on Use of Services

1. A Flight Instructor (Simulator) reaching the age of 65, or lacking a current medical certificate required for flight crew duties, may continue instructing in a simulator environment.
2. However, under these circumstances, they are no longer eligible to serve as a flight crew member in actual flight operations.

3.21.2.3 Selection Process for Flight Instructor (Simulator)

3.21.2.3.1 Active Mukamalah Aviation FDC

1. Mukamalah Aviation follows a multi-step process to select Flight Instructors (Simulator):
    a. Nominations: Flight Deck Crew (FDC) and Training Managers for their respective equipment nominate potential candidates.
    b. Shortlisting: Training Manager Training reviews and shortlists the nominated candidates.
    c. Recommendations: Shortlisted candidates undergo evaluation by Training Manager.
    d. A recommendation for approval is issued by both departments.
    e. Conversely, a recommendation of "not recommended" may be issued with justification.

3.21.2.3.2 Non-Active Pilot

All Flight Instructors (Simulator) shall be selected, trained and qualified as described in this chapter.

3.21.2.4 Approval

3.21.2.4.1 Mukamalah Aviation Approval

Simulator Instructors shall be approved by VP Flight Operations.

3.21.2.4.2 GACA Approval

GACA approval not required; however, the Simulator Instructors' particulars shall be sent to GACA for review to comply with GACA Appendix D to GACAR part 121 – Advanced Simulation (a)(3).

3.21.2.5 Initial Training

3.21.2.5.1 Ground Training

The initial ground training consists of 18 hours and covers the following topics:

1. Fundamentals of teaching, learning, and evaluation (GACAR Part 142).
2. Methods, procedures, and techniques for flight instruction (GACAR Part 142).
3. Teaching methods and instructor-trainee relationships (GACAR Part 142).
4. Teaching and evaluation methods, including lesson plan management (GACAR Part 142).
5. Briefing and debriefing techniques (GACAR Part 142).
6. Proper student performance evaluation, including detection of:
    a. Improper or insufficient training.
    b. Application of Crew Resource Management (CRM) concepts and vocabulary (GACAR Part 121 Appendix A).
    c. Personal characteristics that could affect safety (GACAR Part 121 Subpart Q).
7. Appropriate corrective actions for unsatisfactory performance (GACAR Part 142).
8. Mukamalah Aviation Training Policies and Procedures.
9. Applicable GACAR and Mukamalah Aviation policies (Refer to specific GACAR Parts as applicable).
10. Approved methods and limitations for performing normal, abnormal, and emergency procedures in aircraft (Refer to appropriate Aircraft Flight Manuals and GACAR Parts).
11. Flight instructor and Check Pilot duties, functions, and responsibilities (GACAR Part 61).
12. Regulatory and administrative functions of Flight Instructors and Check Pilots (GACAR Part 61).
13. Simulator-Specific Training for aircraft type:
    a. Proper operation of controls and systems (Refer to appropriate Aircraft Flight Manuals).
    b. Operation of environmental and fault panels, and simulated weather conditions for training sessions (Refer to FSTD manuals and limitations).

c. Data and motion limitations of the simulator (Refer to FSTD manuals and limitations).

d. Minimum aircraft simulator equipment required for each maneuver and procedure in a Flight Simulation Training Device (FSTD) (GACAR Part 121 Appendix H).

14. Extended Envelope Training principles and Instructor Standardization (Refer to applicable Mukamalah Aviation guidance).

3.21.2.5.2 Flight Training

The initial flight training includes:

1. Training and practice in required normal, abnormal, and emergency procedures in an FSTD to ensure competence for flight instruction (GACAR Part 121 Subpart N).
2. Training in FSTD operation to ensure competence for flight instruction (Refer to FSTD manuals and limitations).
3. Guidelines and safety measures for emergency situations in aircraft and FSTDs (GACAR Part 121 Subpart N, FSTD manuals).
4. Consequences of improper or untimely safety measures (GACAR Part 121 Subpart N).
5. Planned Training/Observation:
   a. 4 hours of training and practice as mentioned in item 1 above.
   b. 2 hours of FSTD operation training as mentioned in item 2 above.

NOTE: If no Initial/Transition Training is available, it may be replaced with 16 hours of Recurrent Training. However, the instructor cannot conduct Initial/Transition Training until observing 4 hours and then conducting 4 hours under a qualified Simulator Instructor/Check Pilot.

3.21.2.5.3 Recurrent Training

3.21.2.5.4 Ground Training

1. Recurrent ground training is required every 12 months and consists of a minimum of 4 hours, covering:
   a. Familiarity with Mukamalah Aviation's Advanced Simulation Training Program updates (GACAR Part 121 Appendix D).
   b. Training policies and procedures.
   c. Instruction methods and techniques (GACAR Part 142).
   d. Simulator-Specific Training for aircraft type (same as Initial Training - item 13).
   e. Extended Envelope Training principles and Instructor Standardization (Refer to applicable Mukamalah Aviation guidance).

3.21.2.5.5 Flight Training

No recurrent flight training is required.

3.21.2.5.6 Transition Ground Training

1. Transition ground training is 6 hours and includes:
    a. Approved methods for performing normal, abnormal, and emergency procedures for the transitioning aircraft (Refer to appropriate Aircraft Flight Manuals and GACAR Parts).
    b. Simulator-Specific Training for the transitioning aircraft type (same topics as Initial Training item 13).
    c. Extended Envelope Training principles and Instructor Standardization (Refer to applicable Mukamalah Aviation guidance).

3.21.2.5.7 Transition Flight Training

Transition flight training includes Training and practice in required normal, abnormal, and emergency procedures.

3.21.3 Proficiency Check Pilot (Simulator)

3.21.3.1 Eligibility

To be eligible as a Check Pilot (OE) at Mukamalah Aviation, an applicant must meet the following requirements:

1. Hold the pilot certificates and ratings required to serve as a Pilot-in-Command (PIC) in Mukamalah Aviation revenue operations.
2. Satisfactorily complete all applicable training phases for the aircraft, including recurrent training, required to serve as a PIC in Mukamalah Aviation revenue operations (Refer to applicable Aircraft Flight Manuals and GACAR Parts).
3. Satisfactorily complete the proficiency or competency checks required to serve as a PIC in Mukamalah Aviation revenue operations (Refer to applicable Aircraft Flight Manuals and GACAR Parts).
4. Complete the applicable training requirements of GACAR Part 121.871, including initial and transition training (refer to specific guidance).
5. Hold a valid Class 1 medical certificate required to serve as a PIC.
6. Meet the recent experience requirements of GACAR Part 121.769 (Pilot Qualification: Recent Experience).

3.21.3.2 Approval

1. Mukamalah Aviation Approval: All Check Pilot (OE) candidates must be approved by the Vice President of Flight Operations.

2. GACA Approval: Regulatory approval must be granted by the General Civil Aviation Authority (GACA).

3.21.3.3 Training

Mukamalah Aviation will not utilize a person as a Check Pilot (OE) unless they have satisfactorily completed initial or transition Check Pilot training.

3.21.3.3.1 Initial Training

Check Pilot (OE) Initial Training Overview

3.21.3.3.2 Ground Training

1. Refer to Section 13.2.5.1.2 of the relevant Pilot Qualification Manual for the training curriculum.
2. Ground training is not required if the candidate has already completed similar training as part of Check Pilot or Flight Instructor training.

3.21.3.3.3 Flight Training

1. In-flight training (on the simulator) and practice conducting flight instruction from both the left and right pilot seats in required normal, abnormal, and emergency procedures to ensure competence as a Check Pilot (GACAR Part 121 Subpart N).
2. Training in the safety procedures to be taken from either pilot seat for emergency situations that might develop during instruction (GACAR Part 121 Subpart N).
3. The Initial Flight Training for Check Pilot (OE) must also include:
    a. The safety procedures to be taken from either pilot seat for emergency situations likely to develop during instruction.
    b. The potential consequences of improper, untimely, or non-execution of safety procedures during instruction.
    c. In-flight training and practice in conducting flight instruction from both the left and right pilot seats in required normal, abnormal, and emergency procedures.
4. The requirements in paragraph 3c above may be accomplished in full or in part in flight or in a Flight Simulation Training Device (FSTD), as appropriate (refer to FSTD manuals and limitations).

Initial Flight Training Curriculum Elements

1. Applies to pilots with previous Check Airman experience.
2. Ground training is only required if the candidate has not undergone such training as part of Flight Instructor/Check Pilot Training.
3. Shall include elements of paragraph 3c above.
4. Check Pilot (OE) duties can only be performed after receiving GACA approval.

Note: The supervising Check Pilot shall ensure the candidate has achieved the required skills for briefing, evaluating, and debriefing an airman.

3.21.3.3.4 Recurrent Training

No recurrent training is required for a Check Pilot (OE); however, they must maintain currency and qualification as per this manual.

3.21.3.3.5 Transition Training

3.21.3.3.6 Ground Training

Not required as Mukamalah Aviation does not allow simulation of abnormal and emergency procedures.

3.21.3.3.7 Flight Training

1. The safety procedures for emergency situations likely to develop during instruction.
2. The potential consequences of improper, untimely, or non-execution of safety procedures during instruction.
3. In-flight training and practice in conducting flight instruction from both the left and right pilot seats in required normal procedures to ensure competence as a Check Pilot (GACAR Part 121 Subpart N).
4. The safety procedures to be taken from either pilot seat for emergency situations likely to develop during instruction (GACAR Part 121 Subpart N).

The requirements in items 1, 2, and 3 above must be completed in a simulator.

3.21.3.3.8 Requalification Training

If a Check Pilot (OE) remains unqualified for more than 12 months, they require requalification.

3.21.4 Proficiency Check Pilot (Simulator)

3.21.4.1 Eligibility

To be eligible as a Proficiency Check Pilot (Simulator) at Mukamalah Aviation, an applicant must meet the following requirements:

1. **Experience Requirement:** As outlined in Mukamalah Aviation's Advanced Simulation Training Program Appendix D, Section (a)(3):
    a. The candidate must have served for at least 1 year as a Proficiency Check Pilot (Simulator) in a Mukamalah Aviation approved program, OR
    b. Served for at least 1 year as a Pilot-in-Command (PIC) or Second-in-Command (SIC) in an airplane of the group the pilot is checking.

2. Pilot Qualifications: Mukamalah Aviation cannot utilize a person as a Proficiency Check Pilot (Simulator) unless they hold the following:

   a. The pilot certificates and ratings (excluding a medical certificate) required to serve as a PIC in Mukamalah Aviation revenue operations.

   b. Have satisfactorily completed all applicable training phases for the aircraft, including recurrent training, required to serve as a PIC in Mukamalah Aviation operations (Refer to applicable Aircraft Flight Manuals and GACAR Parts).

   c. Have satisfactorily completed the proficiency or competency checks required to serve as a PIC in Mukamalah Aviation operations (Refer to applicable Aircraft Flight Manuals and GACAR Parts).

   d. Completed the applicable training requirements of GACAR Part 121.871 (Check Pilot Training and Checking Requirements).

   e. Have been approved by the President of the General Civil Aviation Authority (GACA) for Proficiency Check Pilot (Simulator) duties.

3.21.4.2 Limitations on Use

A Proficiency Check Pilot (Simulator) who has reached their 65th birthday or does not hold a valid medical certificate may perform Proficiency Check Pilot (Simulator) duties but cannot serve as a flight crew member in Mukamalah Aviation operations under this part.

3.21.4.3 Training

3.21.4.3.1 Initial Training

Proficiency Check Pilot (Simulator) Initial Training Overview

3.21.4.3.2 Ground Training

1. Ground training is not required if the candidate has already completed similar training as part of Flight Instructor/Check Pilot training.

3.21.4.3.3 Flight Training

1. Training and practice in conducting flight checks in the required normal, abnormal, and emergency procedures to ensure competence in conducting flight checks as per this part. This training must be accomplished in a Flight Simulation Training Device (FSTD) (GACAR Part 121 Subpart N).

2. Training in the operation of FSTDs to ensure competence in conducting flight checks as per this part (Refer to FSTD manuals and limitations).

3. The trainee shall receive instruction on all exercises in an FSTD as provided in the respective aircraft flight training syllabus in the Flight Instructor Handbook, including but not limited to:

   a. Normal, Abnormal, and Emergency Procedures

   b. Air Traffic Control (ATC) Communication and Navigation Procedures in an FSTD

c. Aircraft Weight and Fuel Management

d. Performance Procedures

e. Contingency Procedures

4. Training and practice in conducting flight checks from both the left and right pilot seats in the required normal, abnormal, and emergency procedures to ensure competence in conducting pilot flight checks as per this part (GACAR Part 121.871(e)).

5. Training in the safety procedures to be taken from either pilot seat for emergency situations that might develop during a check (GACAR Part 121.871(e)).

3.21.4.3.4 Planned Training/Observation

If no Initial/Transition Training is available, the Initial/Transition training may be replaced with 16 hours of Recurrent Training. However, the candidate cannot be utilized for Initial/Transition Training until observing 4 hours of Initial/Transition training and then conducting 4 hours of Initial/Transition Training under the supervision of a qualified Flight Instructor (Simulator)/Proficiency Check Pilot (Simulator).

Note: The supervising Check Pilot must ensure the candidate has achieved the required skills for briefing, evaluating, and debriefing an airman.

3.21.4.3.5 Recurrent Training

3.21.4.3.5.1 Ground Training

Proficiency Check Pilots must complete 4 hours of recurrent ground training every 12 calendar months covering the following FSTD-specific subjects for the airplane type:

1. Proper operation of controls and systems.

2. Proper operation of environmental and fault panels.

3. Data and motion limitations of simulation.

3.21.5 Line Check Pilots – All Seats (Left, Right, Observer's)

3.21.5.1 Qualifications

1. Pilot in Command (PIC) Qualification: Candidates must be qualified as PICs for Mukamalah Aviation and hold a valid first-class medical certificate.

2. Training and Currency: Candidates must meet all training and currency requirements to serve as PICs, including line currency, ground and flight training, proficiency or competency checks, line checks, and 90-day landing currency.

3. Check Pilot (OE) Qualification: Candidates must also be qualified as Check Pilots (OE) at Mukamalah Aviation.

3.21.5.2 Training

3.21.5.2.1 Initial Training

Line Check Pilot (All Seats) Initial Training Overview

3.21.5.2.2 Ground Training

1. Refer to Section of the relevant Pilot Qualification for the training curriculum.
2. Ground training is not required if the candidate has already completed similar training as part of Instructor/Check Pilot training.

3.21.5.2.3 Flight Training

1. Conduct flight training and practice conducting training (and checks for Check Pilots) from both the left and right pilot seats using the required normal, abnormal, and emergency procedures. This ensures competence in conducting the required flight training (and pilot checks if applicable) (GACAR E-Book, Vol 4, Chapter 20).
2. Learn guidelines and safety measures for emergency situations that might develop during the required normal, abnormal, and emergency procedures in an aircraft (GACAR E-Book, Vol 4, Chapter 20).
3. Understand the consequences of improper or untimely safety measures.

3.21.5.2.4 Planned Training/Observation

The supervising Check Pilot must ensure the candidate has achieved the required skills for briefing, evaluating, and debriefing an airman.

3.21.5.2.5 Recurrent Training

Not required.

3.21.5.3 Transition Training

3.21.5.3.1 Planned Training/Observation

If appointed directly as Line Check Pilot (All Seats) without Check Pilot (OE) training, the candidate must complete the Check Pilot (OE) Transition Training Curriculum and the Line Check Pilot (All Seats) Training Curriculum.

3.21.5.4 Requalification Training

1. **Requalification after 12-36 Months:** If a Line Check Pilot (All Seats) remains unqualified for more than 12 months but less than 3 years, they require requalification by undergoing the Line Check Pilot (All Seats) Transition Flight Training program (Section 13.5.4.3).

2. **Requalification after More than 3 Years:** If a Line Check Pilot (All Seats) remains unqualified for more than 3 years, they must undergo the complete Check Pilot (OE) and Line Check Pilot (All Seats) Initial Training program (Section 13.5.4.1).

3. **Currency Activity Failure:** If a Line Check Pilot (All Seats) fails to meet currency activity requirements (Section 13.5.5.(d)), they must conduct 2 sectors of OE Supervision activity or a Line Check under the supervision of a designated Line Check Pilot (All Seats) before conducting any checking or instructional activities.

3.21.5.5 Currency

1. **Line Check or OE Supervision Observation:** Within the preceding 24 calendar months, the pilot must satisfactorily conduct a Line Check or OE Supervision under the observation of a GACA inspector, or a designated examiner employed by Mukamalah Aviation (ADE program).

2. The observation check must be accomplished in an aircraft (**GACAR §121.863(a)(2)**). The observation check is considered completed in the month required if completed in the month before or after the month it is due (**GACAR §121.871(b)**).

3. **Flight Instructor/Check Pilot Standardization Meeting:** Attend at least one meeting in the preceding 12 months.

4. **Activity Currency:** Refer to Mukamalah Aviation Operations Manual (OMA) Section for activity currency requirements.

3.21.5.6 Authorized Activities

A Line Check Pilot (All Seats) is authorized to conduct the following:

1. Pilot flight crew member line checks from either pilot seat or the observer's seat.

2. Training and checking in special operations as a module of Mukamalah Aviation's approved training program, provided the check pilot is qualified in the specific operations for which training or checking is conducted (e.g., special airports or international routes).

3. Supervision of pilot flight crew member OE from either pilot seat.

4. When authorized by the Training Manager

3.21.6 LOFT Instructor

3.21.6.1 Qualifications

A LOFT Instructor must meet the following qualifications:

1. **Maintain Flight Instructor (Simulator)/Proficiency Check Pilot (Simulator) Currency:** The LOFT Instructor must hold a current Flight Instructor (Simulator) and Proficiency Check Pilot (Simulator) qualification in accordance with Mukamalah Aviation's standards and relevant GACAR regulations.
2. **Experience:** The LOFT Instructor must have served as a Flight Instructor (Simulator)/Proficiency Check Pilot (Simulator) for a minimum of 12 months at Mukamalah Aviation.

3.21.6.2 Selection

The Manager Training of the respective equipment type shall propose candidates for LOFT Instructor positions.

3.21.6.3 Approval

The Training Manager of the respective equipment type shall approve a Flight Instructor (Simulator)/Proficiency Check Pilot (Simulator) as a LOFT Instructor upon successful completion of their LOFT Instructor training.

3.21.6.4 Training

3.21.6.4.1 Initial Training

1. LOFT Instructor Initial Training Overview
2. This section covers both ground and flight training components of the LOFT Instructor initial training program.

3.21.6.4.2 Recurrent Training

No LOFT-specific recurrent training is required. However, Instructors must maintain their Flight Instructor (Simulator) and Proficiency Check Pilot (Simulator) qualifications through their respective recurrent training programs.

3.21.6.4.3 Transition Training

There is no separate ground training requirement for LOFT Instructor transition training.

3.21.6.4.4 Flight Training

Transition training flight training is identical to the initial LOFT Instructor flight training program.

3.21.6.5 Requalification Training

1. If a Flight Instructor/Proficiency Check Pilot (Simulator) has been unqualified as a LOFT Instructor for more than 12 months, they must undergo the complete ground and flight LOFT Instructor training program.
2. If the disqualification period is between six and twelve months (inclusive), they must only complete the flight training portion of the LOFT Instructor training program.

3.21.6.6 Currency

To maintain LOFT Instructor currency, an instructor must:

1. **Maintain Simulator Check Pilot Rating:** The instructor must hold a current Simulator Check Pilot rating as per Mukamalah Aviation's standards and relevant GACAR regulations.
2. **Conduct LOFT Training Sessions:** Conduct at least one LOFT training session within the preceding six months.

3.21.6.7 Authorized Activities

A LOFT Instructor is authorized to:

1. Conduct and evaluate LOFT training sessions.
2. When authorized by the Training Manager, provide ground instruction for airmen and certify satisfactory completion of ground training curriculum segments.

3.21.7 Line Observation Program

GACAR §121.867(f)(ii)

1. Maintaining Currency for Flight Instructor/Proficiency Check Pilot (Simulator) Duties in Flight Simulation Training Devices (FSTDs):
    a. Flight Instructors (FIs) and Proficiency Check Pilots (PCPs) utilizing Flight Simulation Training Devices (FSTDs) for instructional purposes must meet one of the following requirements within the preceding 12 months:
    b. **Flight Experience:** Act as a required crewmember on at least two flight segments in the relevant aircraft type while holding a valid Class 1 medical certificate.

OR

2. **Line Observation Program (LOPO) Completion:** Successfully complete a Mukamalah Aviation-approved Line Observation Program (LOPO) within the program's prescribed timeframe.
3. Alternatives to Actual Line Flying: In accordance with GACA E-Book, Vol 4, Chapter 20, Mukamalah Aviation offers a Line Observation Program (LOPO) as an alternative to actual line flying for FIs and PCPs seeking to maintain currency for FSTD instruction.
4. LOPO Program Options: The Training Manager (TM) may approve two types of LOPO programs:

5. Line Observation from Observer's Seat: This program allows observation of flight operations from the jumpseat.
6. Line-Operational Simulation (LOS) Program: This program utilizes a specifically designed LOS scenario within the FSTD to simulate real-world flight operations.

3.21.8 Selection, Training & Qualification of Non-Active Pilots as Flight Instructor/Check Pilot (Simulator)

3.21.8.1 Eligibility

1. Pilot Experience and English Language Proficiency (ELP):
   a. Minimum 500 hours as Pilot-in-Command (PIC) and 5,000 total flying hours with a GACAR Part 121 certificate holder.
   b. ELP Level 4 from a GACA-approved center.

3.21.8.2 Qualifications

1. Flight Instructors (Simulator): Must meet the following requirements per GACAR §121.867(c), 121.875 & Appendix D, E-Book Vol 4 Ch 20:
   a. Hold airman certificates and ratings (excluding medical) required for Mukamalah Aviation PICs under GACAR Part 121.
   b. Complete relevant aircraft training phases (including recurrent training) for Mukamalah Aviation PICs under GACAR Part 121.
   c. Pass proficiency/competency checks required for Mukamalah Aviation PICs under GACAR Part 121.
   d. Complete applicable training requirements of GACAR §§121.867, 121.875 & Appendix D (Simulator Instructor Training).
   e. Receive GACA approval for FI (Simulator) duties.
2. Check Pilots (Simulator): Must meet the following requirements per GACAR §121.863(c), §121.871 & GACA E-Book Vol 4 Ch 20:
   a. Hold airman certificates and ratings (excluding medical) required for Mukamalah Aviation PICs under GACAR Part 121.
   b. Complete relevant aircraft training phases (including recurrent training) for Mukamalah Aviation PICs under GACAR Part 121.
   c. Pass proficiency/competency checks required for Mukamalah Aviation PICs under GACAR Part 121.
   d. Complete applicable training requirements for FI (Simulator) as mentioned above and of GACAR §§121.863, 121.871 & Appendix D (Check Pilot Training & Checking Requirements).

e. Have at least one year of prior FI (Simulator) experience on the aircraft type within the last 36 months.

f. Receive GACA approval for CP (Simulator) duties.

3.21.8.3 Selection Process

1. Screening by Training Manager (TM).
2. Interview by Flight Operations Training Review Board.
3. Final recommendation from TM and Flight Operations Standards & Quality.

3.21.8.4 Mukamalah Aviation Approval

Final appointment of Simulator Instructors/Check Pilots requires VP Flight Operations approval.

3.21.8.5 GACA Approval

Prior to appointment, GACA approval is required for both FIs and CPs (Simulator). Details are sent to GACA for review and approval following Appendix D to GACAR 121 – Advanced Simulation (a)(3).

3.21.8.6 Training

3.21.8.6.1 Initial Training

Candidates must complete applicable recurrent/requalification training and proficiency/competency checks before starting the following training.

1. Initial Ground Training (18 hours, GACAR 121.875(c))
   a. Teaching, learning, and evaluation processes.
   b. Flight instruction methods, procedures, and techniques.
   c. Instructor-Trainee relationship.
   d. Teaching/evaluation methods (including lesson plan management).
   e. Briefing and debriefing techniques.
   f. Student performance evaluation (detecting improper training and unsuitable characteristics).
   g. Corrective actions for unsatisfactory training progress.
   h. Mukamalah Aviation Training Policy and Procedures.
   i. Applicable GACAR regulations and Mukamalah Aviation policies.
   j. Approved methods/procedures/limitations for performing normal, abnormal, and emergency procedures in the aircraft.
   k. FI/CP duties, functions, and responsibilities.
   l. Administrative functions of FI/CP and training course revisions.

m. Crew Resource Management and crew coordination.

3.21.8.6.2 Initial Flight Training and Qualification

1. Training and practice in required normal, abnormal, and emergency procedures for flight instruction competency (in FSTD or part thereof).
2. FSTD operation training for flight instruction competency.
3. Simulator-Specific Training (not part of ground training):
   a. Proper operation of controls and systems.
   b. Proper operation of environmental controls, warnings, cautions, and fault panels.
   c. Simulation data and motion limitations.
   d. Minimum aircraft simulator equipment required per GACAR 60 for applicable Mukamalah Aviation training curriculum maneuvers/procedures in an FSTD.

3.22 TESTING, FAILURE AND REMEDIAL TRAINING POLICY

3.22.1 General

1. This chapter is part of a qualification curriculum segment that contains policies related to FCM evaluation, testing, checking, and qualification requirements specified under Part 121. For instance, a qualification curriculum segment may include a proficiency check, a Line-Oriented Flight Training (LOFT) module, or an operating experience (qualification) – Line Check module.

2. These policies and procedures are designed to provide professional, efficient, and impartial testing and remedial training. They comply with GACA regulations and conform to international Training and Testing standards.

3. In this policy, the term "pilot" refers to an FCM (Flight Crew Member).

3.22.2 Evaluation Policy

1. The term "evaluation" means checking, testing, or reviewing flight crew member qualification, training, and certification. It includes any process designed to assess competency, ability, proficiency, or judgment; for example, Proficiency Checks, Line Checks, Oral Evaluations, Written or CBT Examinations/Tests.

2. Before an evaluation, flight crew members will be briefed on potential malfunctions that might be presented during the evaluation, including the city pairs to be flown or the general maneuver requirements. However, they will not be given the exact evaluation scenario.

3. These evaluations may be part of a defined Training Program (e.g., CBT during Transition Training) or Stand-Alone Checks (e.g., Proficiency Checks).

3.22.3 Grading (Standards) Criteria

All evaluations will be graded using the following criteria:

1. Unsatisfactory: Major deviations from the prescribed qualification standards occur that are not recognized or corrected. Individual or crew performance could result in hull loss or loss of life. CRM skills are not effective. An "Unsatisfactory" grade is considered a "Failure."

2. Below Standard: Deviations from the prescribed qualification standards occur that are not recognized or corrected. Individual or crew performance is safe but does not meet expectations and would be unsatisfactory if diminished by any amount. CRM skills are not completely effective.

3. Standard with Debrief: Deviations occur from the prescribed qualification standards that are recognized and mostly corrected. Individual or crew performance meets expectations. CRM skills are effective.

4. Standard: Minor deviations occur from the prescribed qualification standards that are recognized and corrected in a timely manner. Individual or crew performance meets expectations. CRM skills are clearly effective.

5. Excellent: Performance remains well within the prescribed qualification standards. Individual or crew performance, management, and CRM skills are exemplary.

3.22.4 Failures

1. All failures, except Maneuver Failures, will be referred to and handled by the Flight Operations Training Review Board (FOTRB). Maneuver failures will be treated as Slow Training Progress and referred to the respective Training Manager for corrective action.

2. The FOTRB will assess all failures against "Allowable Failure" criteria to determine applicability before remedial training or retesting is awarded.

3. All failures will be reviewed and followed by Remedial Training as recommended by the FOTRB before a retake is allowed.

4. If a pilot being evaluated in a simulator fails any of the required maneuvers, the person giving the proficiency check may provide additional training during the check. In addition to repeating the failed maneuvers, the person giving the proficiency check may require the pilot to repeat any other maneuvers they find necessary to assess the pilot's proficiency. Any failed maneuver can only be trained and retested once. A remark must be entered in the check form describing the training/retesting maneuvers performed. If the Pilot fails to demonstrate the maneuver satisfactorily in the retest, it will be considered a failure of the evaluation and treated as such.

5. The Training Manager, Flight Operations, will analyze all individual and collective failure data for corrective measures, and maintain a history of this data.

3.22.4.1 Failure Criteria

1. In a Written or CBT Examination/Test:

2. Inability to achieve the minimum passing score/grade of 80% or as specified in the FOM (Flight Operations Manual).

3. In an Oral Test:

4. Inability to demonstrate thorough knowledge, comprehension, and understanding of the subject/topic being evaluated, resulting in an "Unsatisfactory" grade.

5. In a Practical Test:

6. Inability to complete a practical test (e.g., Proficiency Check in Simulator or Line Check) resulting in an "Unsatisfactory" grade by failing in:

    a. Performing the tasks specified in the areas of operation for the airman certificate or rating sought within the approved practical test standards.

    b. Demonstrating mastery of the aircraft by performing each task successfully.

    c. Demonstrating proficiency and competency within the approved standards.

    d. Demonstrating sound judgment.

3.22.4.2 Failure Within a Training Program

1. This addresses situations where a pilot fails to meet the performance standards during a specific element within a broader training curriculum (e.g., ground school, simulator training, flight training). It's important to distinguish these failures from those that occur during a proficiency check, which is a standalone evaluation.
2. Types of Failures:
    a. Written or Oral Test Failures: Scoring below the minimum passing threshold (typically 80% or as specified in the Operations Manual Part A (OMA)).
    b. Practical Test Failures: Demonstrating unsatisfactory performance during a practical exercise, such as a simulator session or flight maneuver. This could include:
        i. Failing to complete a required task.
        ii. Inability to demonstrate mastery of the aircraft.
        iii. Lack of proficiency or competency within acceptable tolerances.
        iv. Poor judgment during the exercise.
3. Remedial Training:
    a. Following a failure within a training program element, the pilot will not be allowed to progress until the specific knowledge or skill gap is addressed.
    b. The Training Manager will assign a personalized remedial training plan tailored to the pilot's identified deficiencies. This plan may include:
        i. Reviewing relevant learning materials (e.g., manuals, procedures).
        ii. Completing additional simulator or flight training sessions.
        iii. Receiving one-on-one instruction from a qualified flight instructor.
4. Retesting:
    a. Once the remedial training is completed, the pilot will have the opportunity to retest on the failed element.
    b. The retest format may vary depending on the nature of the initial failure.
    c. It's important to note that there may be limitations on retesting attempts to ensure continuous progress and prevent undue delays in training.
5. Further Evaluation:
    a. In cases of repeated failures within a training program, the Training Manager may recommend further evaluation to identify any underlying factors that might be affecting the pilot's performance. This could involve:
        i. Reviewing the pilot's medical history.
        ii. Assessing the pilot's technical knowledge and decision-making skills.

iii. Evaluating the pilot's ability to handle stress and workload.

b. The goal of this process is to ensure that all pilots achieve the necessary competency level before progressing to operational flying. Early identification and rectification of performance deficiencies through targeted remedial training contribute to a safer and more efficient operation.

3.22.5 Pilot Use of Checklists

Throughout the practical test, the pilot is evaluated on the use of an appropriate checklist. Here's a breakdown of how checklists are evaluated:

1. **Pilot Flying (PIC acting):** Coordinates all checklists with the crew to ensure all items are accomplished in a timely manner. Manages the flight to include crew checklist performance, requiring standard callouts, announcing intentions, and initiating checklist procedures.
2. **Proper Use:** Depends on the specific TASK being evaluated. In situations where using the checklist might be unsafe or impractical while accomplishing elements of an Objective, a review of the checklist after completing those elements would be appropriate. Pilot workload and visual scanning should also be considered when using checklists.

3.22.5.1 Use of Distractions during Practical Tests

Numerous studies indicate that distractions during critical flight phases can lead to accidents. To assess the pilot's ability and situational awareness to utilize proper control technique while dividing attention, the check pilot must introduce a realistic distraction during the flight portion of the practical test. This evaluates the pilot's ability to:

1. Divide attention while maintaining safe flight.

3.22.5.2 Positive Exchange of Flight Controls

During the flight, there must always be a clear understanding between the pilots of who has control of the aircraft. Here's how a positive exchange is ensured:

1. Visual Check: Recommended to verify that the exchange has occurred.
2. No Doubt: There should never be any ambiguity about who is flying the aircraft.

3.22.5.3 Allowable Tolerances

The document now includes detailed allowable tolerances for various maneuvers during the proficiency check:

1. Takeoff
    a. Maintain appropriate climb segment airspeed/V-speeds (±5 knots).
    b. Maintain desired heading (±5°).
2. Departure Procedures

a. Maintain airspeed (±10 knots), heading (±10°), and altitude (±100 feet).

b. Accurately track course, radial, or bearing.

3. Steep Turns

a. Roll into a coordinated 180° or 360° turn with a bank angle of at least 45°.

b. Maintain bank angle within ±5° while in smooth, stabilized flight.

c. Apply smooth coordinated pitch, bank, and power to maintain:

i. Specified altitude (±100 feet).

ii. Desired airspeed (±10 knots).

d. Roll out of the turn within ±10° of the entry or specified heading, stabilizing the airplane in straight-and-level flight. The check pilot may discretionarily request a reversal of the turn.

e. Avoid any indication of an approaching stall, abnormal flight attitude, or exceeding structural or operating limitations.

4. Power Plant Failure

a. Maintain desired altitude (±100 feet) when a constant altitude is specified and within airplane capability.

b. Maintain desired airspeed (±10 knots).

c. Maintain desired heading (±10° of specified heading).

5. Arrivals

a. Maintain airspeed/V-speed (±10 knots), but not less than VREF (if applicable).

b. Maintain heading (±10°).

c. Maintain altitude (±100 feet).

d. Accurately track radials, courses, and bearings.

6. Holding

a. Maintain airspeed/V-speed (±10 knots).

b. Maintain altitude (±100 feet).

c. Maintain headings (±10°).

d. Accurately track radials, courses, and bearings.

7. Instrument Approach Procedures

a. Precision Approach

i. Prior to beginning the final approach segment, maintain:

1) Desired altitude (±100 feet).

2) Desired airspeed (±10 knots).

3) Desired heading (±5°).

4) Maintain a stabilized final approach from the precision final approach fix to DA/DH, allowing no more than one-quarter scale deflection of either the glide-slope or localizer indications, and maintain desired airspeed (±5 knots).

5) Maintain localizer and glide slope within one-quarter-scale deflection during the visual descent from DA/DH to a point over the runway where the glide-slope must be abandoned for a normal landing.

8. Non-precision Approach

a. Prior to beginning the final approach segment, maintain:

i. Desired altitude (±100 feet).

ii. Desired airspeed (±10 knots).

iii. Desired heading (±5°).

b. Maintain required Rate of Descent (CDFA).

c. While on the final approach segment, allow not more than a quarter-scale deflection of the Course Deviation Indicator (CDI) or ±5° in the case of the RMI or bearing pointer, and maintain airspeed within ±5 knots of desired speed.

d. Maintain the MDA,

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4. FLIGHT DISPATCHER TRAINING

4.1 INITIAL AND TRANSITION GROUND TRAINING

GACAR § 121.895

1. Although Mukamalah Aviation maintains the regulatory responsibility for ensuring that its training programs remain current and continue to meet the needs, Mukamalah Aviation will utilize GACAR Part 143 approved training schools, instructors and curriculums for Aircraft Flight Dispatcher Training. Those curriculums must meet the following minimum requirements.

2. Initial and transition ground training for flight dispatchers must include instruction in at least the following:

   a. General subjects:

      i. Use of communications systems including the characteristics of those systems and the appropriate normal and emergency procedures;

      ii. Meteorology, including various types of meteorological information and forecasts, interpretation of weather data (including forecasting of en route and terminal temperatures and other weather conditions), frontal systems, wind conditions, and use of actual and prognostic weather charts for various altitudes;

      iii. The notice to airmen system;

      iv. Navigation aids and publications;

      v. Characteristics of appropriate aerodromes;

      vi. Prevailing weather phenomena and the available sources of weather information;

      vii. ATC and instrument approach procedures; and

      viii. Contents of the Operations Manual Parts A, B & C.

   b. For the B737-800:

      i. A general description of the aircraft emphasizing operating and performance characteristics, navigation equipment, instrument approach and communication equipment (including the effects of meteorological conditions on radio reception), emergency equipment and procedures, and other subjects having a bearing on flight coordinator duties and responsibilities;

      ii. Flight operations procedures;

      iii. Mass and balance computations;

      iv. Basic aircraft performance dispatch requirements and procedures;

      v. Flight planning including track selection, flight time analysis, and fuel requirements; and

      vi. Emergency procedures.

c. The training must emphasize emergency procedures, including the alerting of proper governmental, company, and private agencies during emergencies to give maximum help to an aircraft in distress.

3. Initial and transition ground training for flight dispatchers must include a competence check given by the Fight Dispatch Supervisor or Designated GACA Examiner demonstrating knowledge and ability with the subjects set forth in paragraph (a) of this section.

4. Initial ground training for flight dispatcher must consist of at least 40 programed hours of instruction in the subjects specified in paragraph (a) of this section.

4.1.1 Initial Operating Familiarization

GACAR § 121.961

1. In compliance with GACAR § 121.961 dispatchers will perform at least 5 hours observing operations under Part 121 from the flight deck on the type of airplane to complete the requirement for Initial Operating Experience. This requirement may be reduced to a minimum of 2 1/2 hours by the substitution of one additional takeoff and landing for an hour of flight.

2. Every effort should be made to allow dispatchers to vary the routes on equipment types to gain Initial Operating Experience. For those flights, they will be scheduled as Additional Crewmember (ACM) annual route checks.

> ***Note:*** *Compliance with Initial Operating Experience here above is not required for 90 days after initial introduction of a new airplane into operations under this part.*

3. The FOC Supervisor, will ensure that current records of each dispatcher's qualifications as required by GACAR 121.1505 are shared with the ATT&S section for recording purposes.

4.2 RECURRENT TRAINING

GACAR § 121.835 (c)(3)

4.2.1 General

1. Flight dispatchers shall receive recurrent training every 12 months. The training must include a competency check demonstrating knowledge of the subjects in accordance with Section 6.1 above.
2. Mukamalah Aviation must ensure each flight dispatcher receives recurrent training and is adequately trained and currently proficient with respect to the type aircraft (including differences training, if applicable).
3. Recurrent ground training for flight dispatchers must include at least the following:
   a. A quiz or other review to determine the state of the flight dispatcher's knowledge of the aircraft.
   b. Instruction as necessary in the subjects required for initial ground training by GACAR § 121.879(a).

4.2.2 Program Training Hours

GACAR § 121.919 (c)(3)

Recurrent ground training for flight dispatchers must consist of at least the 10 programed hours:

4.3 DIFFERENCES TRAINING

1. Differences training for flight dispatchers must consist of Instruction in each appropriate subject or part thereof required for initial ground training in the aircraft unless GACA finds those particular subjects not required.

2. The minimum of 20 programed ground training hours will be conducted depending on the previous aircraft type, experience, a type of operation.

4.4 REQUALIFICATION TRAINING

4.4.1 General requirements

Mukamalah dispatchers that fail to complete recurrent training, competency checks, or operational familiarization within the eligibility period must complete requalification training before they can perform unsupervised in revenue service. The content and length of the requalification curriculum depend on the length of time the dispatcher has been unqualified.

Table 1 Requalification Training

Amount of Time Past Month Due	Ground Training Segment	Qualification Segment
Up to 3 calendar months	Recurrent training (if not accomplished in eligibility period).	Any module not accomplished in eligibility CC, OF
More than 3 and less than 6 months:	Eight hours remedial and (if not accomplished in eligibility period) recurrent training.	CC and (if not accomplished in eligibility) OF
More than 6 and less than 12 months:	Eight hours remedial, recurrent training, and on the-job training (OJT) proficiency.	CC and OF
More than 12 and less than 36 months:	Sixteen hours remedial, recurrent training and OJT proficiency.	CC and OF
More than 36 months:	Initial training.	CC and OF
KEY: CC = Competency Check		

4.4.2 Course Materials

Flight Dispatch Training Course material must be reviewed and evaluated every 6 months by dispatch Instructor and/or FOC Manager in coordination with training department in accordance with OMD to ensure compliance with the approved qualification and performance standards. Such evaluation can be made by checking for any updates in the references used in the course material may reflect on the material.

4.4.3 Qualification and Training Records

1. A system for Record Management and Control is used within Mukamalah Aviation for the purpose of keeping records that document the fulfillment of operational requirements. All training records, qualification requirements, personnel information, correspondences are included within the system. And company requirements are precisely considered.

2. This system assists in manipulating all records including:
   a. Identification;
   b. Legibility;
   c. Maintenance;
   d. Retrieval;
   e. Protection and security;
   f. Disposal.
3. The FOC Manager will maintain all dispatcher training records and will verify the list of dispatchers scheduled to work are current and qualified in the following areas prior to the assignment of their shift.
   a. Copy of dispatch license shows approved type rating (initial/recurrent);
   b. Initial training records;
   c. Recurrent training records;
   d. Annual competency check;
   e. Flight deck familiarization flight completed by dispatcher;
   f. Special training such as CRM and SMS if applicable.
4. The record of an aircraft dispatcher will present the training history in order to help in determining the qualification level of that person's records, qualification requirements, personnel information, correspondences are included within the system. And company requirements are precisely considered.
5. The record of an aircraft dispatcher will present the training history in order to help in determining the qualification level of the employee.

5. CABIN CREW TRAINING

GACAR § 121.891

5.1 GENERAL

Mukamalah Aviation staff shall not act as the cabin crew members, unless they have passed the cabin crew training program provided by Mukamalah Aviation or a GACA approved training center. Cabin Crew must have a valid license or attestation issued by GACA with the qualifications for each aircraft type operated by Mukamalah Aviation and valid training certificate.

Cabin Crew must also demonstrate the skills in performing normal and abnormal operations in the aircraft and the proper care of passengers and crew.

5.1.1 Basic Indoctrination

GACAR §121.879(1)

Training Content	Delivery Method	Duration	Exam
1. Corporate Executives Organization Chart 2. Initial Corporate Indoctrination 3. Who we are / History of Aviation / Our History 4. ICAO (International Civil Aviation Organization) 5. GACA Regulations structure and overview 6. GACARs Local Regulations applicable to Cabin Crew 7. Appropriate portions of operating manual 8. Aircraft systems and components 9. Forces acting on an airplane in flight 10. Phases of a Flight 11. Weight and balance (importance of stowage and how it affects the airplane) 12. Glossary on Aerodynamics 13. Coordinated universal time and time zones 14. Airports 15. Phonetic alphabet 16. Aeronautical codes and abbreviations 17. Basic airport facilities and services 18. Firefighting, search and rescue services 19. Crewmember flight duties and responsibilities.	E-learning or Face to face	40 hours	80% Approval

5.1.2 Safety and Emergency Training

GACAR § 121.891, 121.907

SEP Day 1
GENERAL
1. Introduction to Aviation 2. Aviation Roles and regulations 3. Cabin Crew Operating restrictions 4. Flight Time limitations 5. Use of crew Jump Seats 6. Incidents and defects reporting 7. Cabin Crew responsibilities 8. Authority of PIC 9. Aviation terminology 10. Stages Of the Flight 11. Drills & procedures 12. Chain of Commands 13. Standard Operating Procedures (SOPs) 14. Reporting for Duty 15. Safety & Security Checks 16. Passengers Boarding 17. Refueling with Passengers Onboard 18. Cabin Securing 19. Critical Phases of Flight 20. After Take Off 21. Flight Deck Surveillance 22. General Surveillance 23. Preparation for landing 24. After Landing 25. Passengers Disembarkation
SEP Day 2
EMERGENCIES
1. Brace Position

2. Catastrophic
3. Crowd Control
4. Evacuation Technique
5. Unplanned Emergencies
6. Pre-Planned Emergencies
7. Passenger Preparation (Ground/ Ditching)
8. Ditching and other evacuation
9. Precautionary Landing
10. Rejected Take Off
11. Go – Around
12. Practical Use of SEP Equipment used in ditching and evacuation.
13. Emergency exits in the emergency mode with the evacuation slide/raft
14. Instruction in the handling of emergency situations
15. Decompression: Slow Decompression & Rapid Decompression
16. Hijacking and other unusual situations
17. Review and discussion of previous aircraft accidents and incidents

SEP Day 3

FIRE & SMOKE

1. Classes of Fire
2. Aircraft Fire Statistics
3. Current Threats
4. Fire Fighting Equipment/Portable fire extinguishers
5. Fire Fighting Drill
6. Fire Fighter's Objective
7. Toilet Fire
8. Oven Fire
9. Other Potential Sources
10. Circuit Breakers

Fire & Smoke Practical

SEP Day 4
SEARCH & RESCUE
1. Principles of Survival 2. The Will to Survive 3. Survival on Land 4. Survival at Sea 5. Polar Survival 6. Desert Survival 7. Jungle Survival 8. Practical Water Survival Training 9. Equipment used in ditching, evacuation and survival. SEP Written Test – 80% Approval as minimum passing grade

5.1.2.1 One Time Emergency Drill Requirements

GACA § 121.907, & 121.417

Trainees must complete the following emergency drills during initial training:

1. PBE Firefighting Drill:
    a. Trainees extinguish an actual fire using a charged fire extinguisher while wearing PBE.
    b. Evaluated on fire saturation (complete extinguishment).
2. Emergency Evacuation Drill:
    c. Trainees egress the aircraft or simulator using an emergency evacuation slide.
3. Evaluated on pre-impact, after impact, and slide deployment:
    d. Prior to Impact: recognizing emergencies, assuming brace positions, and instructing passengers.
    e. After impact: crew coordination, passenger instructions, exit assessment, evacuation initiation, slide deployment & assistance, and ensuring passenger movement away from the aircraft.
    f. Slide deployment: proper jumping, sliding position, landing, and running away from the aircraft.
4. Special techniques: assisting passengers with disabilities or in a panicked state.
5. PBE Firefighting Drill Considerations:
    g. Locating fire/smoke source
    h. Crew coordination & communication (including notifying pilots)
    i. Donning and activating PBE in limited visibility
    j. Selecting the appropriate fire extinguisher Discharging the extinguisher and using proper firefighting techniques

Mukamalah Aviation requires all cabin crew to complete these one-time drills as part of initial training.

5.1.2.2 Additional Emergency Drill Requirements

Trainees must complete the following emergency drills:

1. Emergency Exit Drill:
    a. Operate all emergency exits in normal and emergency modes, including deploying slides.
    b. Evaluated on pre-flight checks, opening/closing exits normally, arming/disarming exits, deploying slides manually, and opening window exits.
2. Hand Fire Extinguisher Drill:
    a. Operate and discharge different types of fire extinguishers (no actual fire fighting).
    b. Evaluated on pre-flight checks, identifying fire type, selecting extinguisher, operating extinguisher, and crew coordination.
3. Emergency Oxygen System Drill:
    a. Operate various oxygen systems, including PBE.
    b. Evaluated on pre-flight checks, operating portable oxygen, administering oxygen, pre-flight and operation of PBE, and using aircraft oxygen system.
4. CPR Performance Drills:
    a. Demonstrate proper use of Automated External Defibrillator (AED) and Cardiopulmonary Resuscitation (CPR).
5. Floatation Device Drill:
    a. Put on, use, and inflate individual life vests. Swimming techniques demonstrated only for initial training.
6. Ditching Drill:
    a. Practice "prior to impact" and "after impact" procedures.
    b. Evaluated on crew coordination, passenger briefing, cabin preparation, deploying rafts, boarding passengers, and basic survival procedures.
7. Observation Drills (GACA does not require trainee participation):
    a. Life Raft Removal and Inflation Drill
    b. Slide Raft Transfer Drill
    c. Slide Raft Deployment, Inflation and Detachment Drill
    d. Emergency Evacuation Slide Drill

All drills are required during initial and recurrent training, except recurrent hand fire extinguisher training which does not require discharge.

5.1.3 Aircraft Type Specific Training

GACAR § 121.879 (b),(e), § 121.907

1. Each Cabin Crew member must complete the aircraft type training part of Initial, Transition, Recurrent and Requalification as specified in the Company Operations manual before undertaking assigned duties as follows:

   a. Conversion Training:

      A conversion course must be completed before being:

      i. First assigned to operate as a Cabin Crew member; or

      ii. Assigned to operate another aircraft type.

   b. Differences Training:

      Differences training must be completed before operating:

      i. On a variant of an aircraft type currently operated; or

      ii. With different equipment, equipment location, or safety procedures on currently operated aircraft types or variants.

      iii. The Cabin Crew member's previous training recorded in the Cabin Crew member's training records.

      iv. It will be insured that:

      v. Conversion training is conducted in a structured and realistic manner.

      vi. Differences Training is conducted in a structured manner.

      vii. Conversion training, and if necessary, Differences training includes the use of all emergency/survival equipment and all normal and emergency procedures applicable to the type or variant of aircraft. It also involves training and practice on either a representative training device or on the actual aircraft.

   c. Course Content:

      i. Operation of Doors and Exits

      ii. Evacuation Slide Training

      iii. Evacuation Procedures and Emergency Situations

      iv. Crowd Control

      v. Pilot Incapacitation

      vi. Safety Equipment

      vii. Passenger Briefing/Safety Demonstration

      viii. Aircraft Visit will be included (if applicable)

5.1.3.1 Training Hours Summary

GACAR § 121.879 (3)

Aircraft Type Day 1
A/C Familiarization 1. Public Address Systems 2. Location and use 3. Evacuation Alarm Systems (if fitted) 4. Location and operation 5. Emergency Lighting 6. Internal and external 7. Demonstration of lighting 8. Smoke detection systems 9. Pre-flight checks 10. Safety/Emergency Equipment 11. Location and removal 12. Pre-flight checks 13. Flight Deck 14. Location of safety equipment 15. Operation of windows (if applicable) 16. Practical pilot incapacitation 17. Cabin Crew Station(s) 18. Location of crew stations 19. Pre-flight checks 20. Use of harness 21. Toilet Compartments 22. Fire extinguishers 23. Galleys, Galley Security and Water Shut Off 24. Cargo Areas Accessible During Flight 25. Circuit Breaker Panels Located in the Passenger Compartment 26. Exit locations and their environment

Aircraft Type Day 2
DOORS AND EXITS 1. All Cabin Crew members to practically demonstrate the following: 2. Manually Open and Close the Main Door 3. Actual Arming & Disarming Procedure 4. Emergency Door Drill 5. External operation of Main Door 6. Emergency Door Drill with Motivation 7. Emergency Crew Brace Positions/Emergency Door Drill with Motivation 8. Operation of the over wing exit (where applicable) 9. Discuss evacuation via flight deck windows (where applicable) **10.** Cargo doors where accessible from the passenger **cabin (where applicable)**
Aircraft Type Day 3
1. Emergency Procedures for A/C type: 2. Safety Equipment 3. Passenger Briefing/Safety Demonstration 4. Pilot Incapacitation 5. Evacuation Procedures and Emergency Situations **6.** Crowd Control **& Evacuation Slide Training**
Aircraft Type Day 4
1. A/C Specific SEP Final Written Test – 80% as minimum for passing grade. **2.** Practical **Assessment and Final Evaluation for each individual Cabin Crew.**
Total Hours
16 Hours

5.1.4 First Aid Training

First Aid Day 1

1. First Aid Introduction:
2. Aims of First Aid
3. Medical Decision Making
4. Medical Action Plan
5. First Aid Priorities
6. Making a Diagnosis
7. Pulse
8. Respiration
9. Physiology of Flight:
    a. Atmosphere
    b. Dehydration
    c. Hypoxia
    d. Decompression / Time of Useful Consciousness (TUC)

In-Flight Medical Emergencies:

1. Choking
2. Anaphylactic Shock
3. Hyperventilation
4. Abdominal Conditions
5. Epilepsy
6. Angina
7. Heart Attack
8. Stroke
9. Shock
10. Diabetes Emergencies
11. Miscarriage
12. Emergency Childbirth
13. Asthma
14. Emergency Childbirth

First Aid Day 2

Basic First Aid and Survival: Theory/Practical

1. Unconscious Passengers
2. Recovery Position
3. Burns
4. Wounds and Bleeding
5. Fractures and Soft Tissue Injuries
6. Head Injuries

Artificial Respiration and Cardiopulmonary Resuscitation:

1. Theory/Practical
2. Resuscitation Sequence
3. Artificial Respiration
4. External Cardiac Massage

First Aid Kits, Contents, Use and Seals

MedLink Procedures and Associated

Documentation (If applicable)

Emergency Medical Kit, Contents, Use and Seals (if applicable)

First Aid Day 3

Practical and theory training in the use of defibrillators (If applicable).

Travel Health and Hygiene

1. The risk of contact with infectious diseases especially when operating into tropical and sub-tropical areas.
2. Reporting of infectious diseases, protection from infection and avoidance of water-borne and food-borne illness include the means to reduce such risks:
   a. Hygiene on board;
   b. Death on board;
   c. Handling of clinical waste;
   d. Aircraft disinfection; and
   e. Alertness management, physiological effects of fatigue.

First Aid Written Test

5.1.5 Aviation Security

Aviation Security
Threat to Civil Aviation
Objective and Organization of Aviation Security
Legal Powers
Maintaining Effective Security
General Security-Awareness
Awareness of Airport Security Procedures for Aircrew
Recognition of Firearms, Explosives, Incendiary Devices and
Dangerous Goods
Hijacking
1. Response to Security 'incidents
2. Threat Assessments
3. Searching and Checking Aircraft
4. Controlling Access to-Aircraft
5. Handling the Media and Post-Event Debriefing
Aviation Security Written Test

5.1.6 Dangerous Goods

Dangerous Goods
1. Rules for Dangerous Goods
2. Dangerous Goods allowed for carriage
3. Dangerous Goods Not allowed for carriage
4. Hidden or undeclared-Dangerous Goods
5. State and Operator variation
6. Classification of Dangerous Goods
7. Labeling of Dangerous Goods
8. Dris for spillages
9. Reporting procedure
Dangerous Goods Written Test

5.1.7 SMS

Safety Management System (SMS)	
1.	Safety Management System (SMS)
2.	Introduction to Safety-Management System
3.	SMS Requires Knowledge of Human Error Mechanism
4.	The international requirements of aviation regulation and aerodrome certification
5.	The principles of SMS
6.	Organizational Failure
7.	SMS Organization
8.	Safety Culture
9.	SMS Documentation, Competencies and Training
10.	Incident and Accident Investigation
11.	Health and Safety at Work
12.	Safety Committees
13.	SMS Integration
14.	Adopts Risk management Practice
15.	Implementing SMS
16.	Growing SMS
17.	Risk Management and Implementation Challenges
18.	Incident and Accident Investigation
19.	Health and Safety at Work
20.	Safety Committees
21.	SMS Integration
22.	Adopts Risk management Practice
23.	Implementing SMS
24.	Growing SMS
25.	Risk Management and Implementation Challenges

5.1.8 CRM

Crew Resource Management (CRM)

Human Information Processing

1. Potted History Of Human Factors In Aviation
2. Causes Of Fatal Accidents
3. Human Information Processing

Behavior and Personality

1. Individual Differences
2. Conflict Resolution
3. Assertiveness

Effective Communication

1. Stress & Fatigue
2. Performance v Arousal
3. Types of Stress
4. Time Pressures
5. Recognizing Stress
6. Fatigue and Sleep
7. Sleep Patterns
8. Factors contributing to fatigue
9. Symptoms Of Fatigue

Team, Synergy, and Leadership

1. Decision making
2. Situation Awareness,
3. Definition of Situation Awareness
4. Situation Awareness Levels

Vigilance

1. Risk Management
2. Threat & Error Management
3. Active errors and Latent Conditions

4. Defining Error Types
5. Violations
6. Safety Culture
7. James Reason's Swiss Cheese model

5.1.9 Cabin Crew Leadership Training Program

Training Content - Theoretical	Delivery Method	Duration	Exam
1. Characteristics of a leader 2. Differences between Boss and Leader 3. Leader qualities 4. Leader's Role 5. Feedback	Face to face	Eight hours	80% Approval

5.2 RECURRENT TRAINING

GACAR 121.835 (c)

1. Cabin Crewmembers shall receive recurrent training and complete requalification training every 12 or 24 months per the courses listed in below table per the course outlined in chapter 2 of this manual. The training must include a competency check demonstrating knowledge of the subjects below in accordance with GACAR 121.835

Course Name	Training Interval
Crew Resource Management	**24 – month**
Safety Management System	**24 – month**
Aviation Security	**24 – month**
Safety and Emergency Training (SEP)	**24 – month**
Dangerous Goods	**24 – month**
First Aid	**12 – month**
Psychoactive Substances	**24 – month**
Aircraft Type Specific Training	**12 – month**

5.2.1 B737 Recurrent Training

1. Training includes the use of mock-up facilities, aircraft, presentations and other types of training. The program of training for each Cabin Crew member will include the following:
   a. Accident and Incident Review
   b. Crew Resource Management
   c. Touch Drills for opening normal and emergency exits for passenger evacuation
   d. Evacuation Procedures including Crowd Control Techniques
   e. The Location and Handling of Emergency Equipment including Oxygen Systems, and the donning of Lifejackets, Portable Oxygen, and Protective Breathing Equipment
   f. Emergency Procedures including Pilot Incapacitation
   g. Stowage of Articles in the Cabin
   h. First Aid Including practical CPR and the Contents of the First Aid Kits

i. Dangerous Goods Procedures

j. Security Procedures

2. Duration of the course is three (3) days.

a. Objectives: On completing of the course, candidates will be able to demonstrate their competence in:

i. Operating safety equipment correctly.

ii. Demonstrating knowledge and use of emergency procedures to an acceptable standard.

iii. Achieving a "PASS" mark. Written and oral tests will normally consist of a number of multiple-choice questions and require a pass standard of 80 % for all multiple choice questions and 100% for location diagram.

Training Content	Delivery Method	Duration	Exam
Day 1			
8 Hours SEP Normal & Emergency Procedures: **SEP (theory and practical)** 1. Accident and Incident Review an open discussion on current, relevant accidents and incidents 2. Pilot Incapacitation all crew members to practically demonstrate the pilot incapacitation drill. 3. Emergency and Evacuation Procedures all crew members to participate in a selection of unplanned and planned exercises to include evacuation and crowd control techniques. 4. Planned exercises should cover: a. Alert Call b. NITS Briefing c. Emergency Announcement d. Passenger Preparation e. Evacuation Call f. Crew Responsibilities g. Cabin Check h. Removal of Emergency Equipment i. Emergency Crew Brace Positions	Instructor Lead	24 hours	80% - Written 100% - Location Diagram

	j. Crowd Control			
5.	Equipment Review Discuss and demonstrate the systems, locations, drills and use of:			
	a. Megaphone			
	b. Torches			
	c. Infant Car type Seat, Seat/Extension Seat Belts			
	d. First Aid Kit			
	e. Oxygen Systems:			
	i. Decompression Drill			
	ii. Passenger Drop Down system			
	iii. Flight Crew System			
	iv. Passenger and crew portable oxygen			
	f. Emergency Lighting			
	g. Floatation Devices:			
	h. Ditching Drill (including Wet Drill If applicable)			
	i. Life Jackets			
	j. Infant Life Jackets			
	k. Life Cots			
	l. Fire Fighting Equipment:			
	i. Cabin Crew Fire Drill			
	ii. Halon Extinguishers			
	iii. PBE and Fire Gloves			
	iv. Axe			
	v. Smoke Detectors			
	m. Practical Donning of:			
	i. PBE			
	ii. Life Jacket			
	iii. Portable Oxygen Bottle			
6.	Stowage of Articles in the Cabin			

Day 2			
1. Aircraft Specific a. Door and Exits 2. All crew members to practically undertake touch drills for the following: a. Manually Open and Close the Main Door b. Emergency Door Drill c. Emergency Door Drill with Motivation d. Operation of the over wing exit e. Discuss evacuation via flight deck windows (where applicable) and cargo doors where accessible from the passenger cabin.	Instructor Lead	4 hours	80% Approval

5.2.2 First Aid Training

Day 2			
Training Content	**Delivery Method**	**Duration**	**Exam**
1. Introduction 2. Physiology of Flight 3. In-Flight Medical Emergencies 4. Basic First Aid and Survival 5. Artificial Respiration and Cardiopulmonary Resuscitation 6. First Aid Kits, Contents, Use and Seals (If applicable) 7. MedLink Procedures and Associated Documentation (If applicable) 8. Emergency Medical Kit, Contents, Use and Seals (If applicable)	Instructor Lead	4 hours	80% Approval

5.2.3 Dangerous Goods

Day 3			
Training Content	**Delivery Method**	**Duration**	**Exam**
1. Rules for Dangerous Goods 2. Dangerous Goods allowed for carriage 3. Dangerous Goods Not allowed for carriage 4. Hidden or undeclared Dangerous Goods 5. State and Operator variation 6. Classification of Dangerous Goods 7. Labelling of Dangerous Goods 8. Drills for spillages	Instructor Lead	2 hours	80% Approval

5.2.4 Aviation Security Training

Day 3			
Training Content	**Delivery Method**	**Duration**	**Exam**
1. Threat to Civil Aviation 2. Objective & Organization of Aviation Security 3. Legal Powers 4. Maintaining Effective Security 5. General Security Awareness 6. Awareness of Airport Security Procedures for Aircrew 7. Recognition of Firearms, Explosives, Incendiary Devices 8. Hijacking 9. Response to Security Incidents 10. Threat Assessments	Instructor Lead	3 hours	80% Approval

5.2.5 Crew Resource Management

Day 3			
Training Content	**Delivery Method**	**Duration**	**Exam**
1. Personality Awareness, 2. Human Error & Reliability, 3. Attitudes & Behaviors 4. Stress & stress management 5. Fatigue & vigilance 6. Assertiveness 7. Situation awareness, 8. Information Acquisition & Processing 9. Error Prevention & Detection 10. Shared Situation Awareness, 11. Workload Management 12. Effective Communication 13. Cultural Differences 14. Leadership, Cooperation, Synergy,	Instructor Lead	3 hours	80% Approval

5.3 DIFFERENCES TRAINING

GACAR § 121.835 (b) & 121.883

1. Cabin Crewmembers transitioning to a new aircraft type are only required to complete the aircraft characteristic training for that type.
2. The program shall consist of 16 hours of training for the B737 to include a competence check demonstrating knowledge of the subjects below.
    a. Emergency equipment storage location and use:
        i. Fire extinguisher
        ii. Crash Axe
        iii. PBE
        iv. Portable Oxygen
        v. First Aid kit
        vi. AED (if applicable)
    b. Use of Emergency Exit
    c. Use of doors
    d. Use of the public address system and the means of communicating with flight crew members
    e. Use of Galley equipment and the controls for cabin heat and ventilation
    f. Use of seat belts to include adjustment and extensions if needed
    g. Use of seat adjustment and position for takeoff and landing
    h. Use of cabin amenities and storage location for takeoff and landing
    i. Storage of loose items
    j. Use of lavatories
    k. Review of cabin placards and limitations
    l. Review of all emergency procedures and expected communication between the crew
    m. Passenger briefing requirement
    n. Winter weather operation:
        i. Understand and recognize contamination
        ii. Understand the deicing process
        iii. Ability to recognize and communicate when De-icing fluid may have failed.

5.4 REQUALIFICATION TRAINING

GACAR §121.907

1. Cabin Crewmembers shall receive requalification training in the event they qualification expires due to not having received a competency check within the appropriate eligibility period. The training must include a competency check demonstrating knowledge of the subjects below in accordance with the GACAR 121.907:

Training Content	Delivery Method	Duration	Exam
1. Situational awareness 2. Communication 3. Decision making and conflict confrontation 4. Teamwork 5. Leadership 6. Links between threats, bugs and unwanted states 7. CRM skills associated with TEM 8. TEM preventive management strategies	Instructor Lead or E-learning	4 hours	N/A

5.5 INITIAL OPERATIONAL EXPERIENCE (IOE)

GACAR § 121.769, 121.835 (a)

5.5.1 Applicability

1. A new employee who is hired as a cabin crew member must perform at least five (5) flight hours or four (4) flight segments, performing the functions of cabin crew, under the supervision of a Cabin Crew Instructor. Both Cabin Crew Trainee and Instructor must be programmed as minimum operational extra crew.
2. Training received in a GACA approved aircraft cabin training device is acceptable, up to a maximum of three (3) hours.
3. In order to carry out the flight experience, the applicant must have a provisional authorization issued by GACA.

5.5.2 Theoretical and Practical Content

Training Content	Delivery Method	Duration	Exam
1. Briefing 2. Operational documentation 3. Newsletters 4. Pre-boarding 5. Hand luggage location 6. Check list pre-flight check 7. Boarding 8. Briefing for passengers in emergency exits and for disabled, sick or special needs passengers 9. Normal door operation 10. Live or video security demo 11. Pre-flight Checklist	Instructor Lead	2 Hours	Practical Approval

5.6 RECENT EXPERIENCE

5.6.1 Applicability

1. Cabin crew members who do not register flight activity after ninety (90) days to three hundred and sixty-five (365) days, must undergo requalification training conducted by a Cabin Crew Instructor. The retraining will consist of a theoretical and practical training established in the applicable approved Training Curriculums of this Chapter, on a flight of no less than one (1) hour duration in each of the aircraft the crew will perform in. Both Cabin Crew and Instructor will be scheduled as extra operational crew.

2. The cabin crew member who does not record activity in flight from twelve (12) to twenty-four (24) months must complete an initial training course set in Section 5.1.2 Cabin Crew Initial Training, reduced to 50% (if their last experience was with Mukamalah Aviation), and a training flight of two (2) flight hours, under the supervision of a Cabin Crew Instructor, both are programmed as extra crew.

3. Cabin crew with more than one rating and who remain in flight activity, but have stopped flying in a specific aircraft of the same operator must:

    a. Undergo requalification training (Section 5.4 Requalification Training) if the cabin crew did not perform in-flight activity on the aircraft between ninety (90) days to three hundred and sixty- five (365) days,

    b. Take a 50% reduced initial Cabin Crew Initial Training and a flight of no less than one (1) flight hour under the supervision of a Cabin Crew Instructor (both programed as extra crew) if cabin crew did not perform in-flight activity on the aircraft between twelve (12) months to twenty-four (24) months.

5.7 CABIN CREW INSTRUCTORS TRAINING

GACAR § 143.39

5.7.1 Applicability

1. The following qualifications are required to become a cabin crew instructor:
   a. Must have Cabin Crew Member License issued by GACA or any aviation authority acceptable to GACA.
   b. Comply with the Recurrent Training program.
   c. Pass the internal selection process for the position of Cabin Crew Instructor.
   d. Pass the initial Ground Instructor Training Program of a Training Center with a specific module for teaching techniques and that is recognized by Mukamalah Aviation .

5.7.2 Initial

Training Content	Delivery Method	Duration	Exam
1. Module for teaching techniques. 2. Leadership	Instructor Lead	Four Hours	Practical Approved

5.7.3 Recurrent

Training Content	Delivery Method	Duration	Exam
1. Module for teaching techniques. 2. Leadership	Instructor Lead	Four Hours	Practical Approved

5.7.4 Requalification

Training Content	Delivery Method	Duration	Exam
1. Module for teaching techniques. 2. Leadership	Instructor Lead	Four Hours	Practical Approved

5.8 CABIN CREW EXAMINATION & COMPETENCY CHECK

1. A competence check is required to determine the cabin crew knowledge and ability to perform assigned duties and responsibilities, execute normal, abnormal, and emergency procedures, and operate emergency and lifesaving equipment. The minimum passing grade for all type of training is 80%; however, the following policies shall be applied in case of failure in Examination, Retake or Assessment.

2. Trainee may apply for retake a written, oral, or practical exam for a certificate and endorsement, or for an additional endorsement under this part as follows:

   a. After 30 days after the date the trainee failed the exam; or

   b. Before the 30 days have expired if the trainee presents a signed statement from an Instructor holding the certificate and endorsement sought by the trainee, certifying that the Instructor has given the trainee additional instruction in each of the subjects failed and that the Instructor considers the trainee ready for retake.

5.8.1 Initial Training

1. Basic Indoctrination:
   a. Tests knowledge, assertiveness, and ability to perform duties independently.
   b. 25 questions, retake allowed.
2. Dangerous Goods:
   a. Open book exam on safe handling of dangerous goods.
   b. Retake allowed.
3. Aircraft and First Aid:
   a. 25 questions on aircraft and first aid procedures.
   b. Up to 2 retakes total (including Final Exam).
   c. Failure after 2 retakes leads to elimination from training.
4. Final Examination:
   a. 50 questions covering various topics.
   b. Retake allowed if not used on previous exams.
5. Retake Examination:
   a. Allowed a total of 2 retakes for the entire Safety Training Program.
   b. Failure after 2 retakes or 3 total attempts leads to reevaluation for program removal.
6. Performance Evaluation:
   a. Practical drills involving emergency equipment.
   b. Must pass to complete the course.
7. Safety Management System:

   a. Trainees shall be given a test in Safety Management System (SMS), in case of incorrect answer is submitted the instructor shall review the incorrect answer with the trainee to ensure the understanding of the subject.

5.8.2 Transition Training

1. Aircraft Type:
    a. 25 question exams focused on the type of aircraft.
    b. Retake allowed if initially failed.
2. Retake Failure:
    a. Trainees failing the retake will be referred to the Cabin Crew Supervisor for a decision on further training options.
3. Performance Evaluation:
    a. Trainees will be evaluated on practical drills related to the new aircraft.
    b. Weaknesses identified during drills will be reported to the Cabin Crew Supervisor along with suggested additional training.

5.8.3 Recurrent Training

1. General and Aircraft Knowledge:
    a. Trainees will take a 25-question exam with a retake option.
    b. Failure after the retake requires attending a 4-hour requalification training session for general knowledge and aircraft specifics, followed by a re-examination.
2. Dangerous Goods:
    a. Trainees will be tested on dangerous goods handling procedures. A retake is allowed.
    b. Failing the retake necessitates a 1-hour requalification session focused on dangerous goods review and a subsequent re-examination.
3. Check Cabin Crew Certification:
    a. A failing grade on the exam results in the withdrawal of the Check Cabin Crew certificate.
    b. Reinstatement occurs only after successful completion of Check Cabin Crew requalification training.
4. Safety Management System (SMS):
    a. Trainees will take an SMS test.
    b. Instructors will review incorrect answers individually to ensure understanding of the subject matter.
5. Performance Evaluation:
    a. Trainees will be evaluated on practical drills related to safety procedures.
    b. Any identified weaknesses will be reported to the Cabin Crew Supervisor along with recommendations for further training.

5.8.4 Requalification Training

1. General Safety:
    a. Trainees will complete a 50-question exam with a retake allowed.
2. Aircraft Type:
    a. Trainees will take a 25-question exam specific to their qualified aircraft with a retake option.
3. Dangerous Goods (When Applicable):
    a. Trainees will be tested on dangerous goods handling procedures. A retake is allowed.
    b. Failing the retake will result in a referral to the Cabin Crew Supervisor for a decision on further training requirements.

5.8.5 Operating Experience

A Cabin Crew must, for at least 5 hours, perform the assigned duties of a Cabin Crew under the supervision of a Check Cabin Crew who personally observes the performance of these duties. This OE must be gained after satisfactory completion of the appropriate training, included in the Initial New-hire curriculum, and must be acquired during operations conducted, on the subject aircraft type, under part 121. Operating experience is required in order for CABIN CREWs to become fully qualified to serve in operations conducted, on the subject aircraft type, under part 121.

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