



Part 62

Balloon, glider , motor glider, Microlight pilots Licenses & Flight Instructors rating

TABLE OF CONTENTS**Contents**

Part 62	1
Subpart A	8
General.....	8
62.1 Applicability.	8
62.2 Definitions.	8
62.3 Requirement for licenses, ratings, and authorizations.	8
62.5 Licenses and ratings issued under this part.....	9
Class 4- Combination gas and hot air	10
62.7 Expired balloon, glider , motor glider and microlight pilot licenses and resistance.....	10
62.9 Issuance of balloon, glider , motor glider pilot and microlight licenses, ratings, and authorizations.....	10
62.11 Refusal to submit to a drug or alcohol test.	10
62.12 Drug test and ECAA Enforcement action	12
62.13 Offenses involving alcohol or drugs.	12
62.15 Refusal to submit to an alcohol test or to furnish test results.	13
62.17 (Reserved)	13
62.19 Security disqualification.	13
62.21 Duration of balloon, glider , motor glider and microlight pilot licenses and instructor rating.	13
62.23 Medical certificates: Requirement and duration.	13
62.25 Change of name.	14
62.27 language proficiency.....	14
62.29 Voluntary surrender or exchange of license.	14
62.31 Replacement of a lost or destroyed airman license or medical certificate or knowledge test report.....	14
62.33 Tests: General procedure.	15
62.35 Knowledge test: Prerequisites and passing grades.	15
62.37 Knowledge tests: Cheating or other unauthorized conduct.	15
62.39 Prerequisites for practical tests.	15
62.41 (Reserved)	16
62.43 Practical tests: General procedures.	16
62.45 Status of an examiner who is authorized by the ECAA to conduct practical tests.	16
62.47 Retesting after failure.....	17
62.49 Pilot logbooks.	17
62.51 Prohibition on operations during medical deficiency.	18
62.53 Recent flight experience: Balloon, glider , motor glider and microlight pilot in command.....	18
62.55 Falsification, reproduction, or alteration of applications, licenses, logbooks, reports, or records.....	18
62.57 Change of address.....	18
62.59 Balloon, glider , motor glider and microlight pilot license issued on the basis of a foreign pilot license.	18
62.61 Certification of foreign balloon, glider , motor glider and microlight pilots, flight-instructors.	19
62.62 Rendering a lincence valid pursuant to a formal agreement between A.R.E and any other state.	21
(A) The licenses of other contracting state may be automatically rendered valid if A.R.E and such state have:	21
62.63 Glider towing: Experience and training requirements.	21

62.65 – 62.69 Reserved	22
Subpart B	23
Student balloon, glider , motor glider and microlight pilots license	23
62.71 Applicability.	23
62.73 Eligibility requirements for student balloon, glider , motor glider and microlight pilots.....	23
62.75 Application.....	23
62.77 Solo requirements for student pilots.	23
62.79 General limitations.....	24
62.81 Solo cross-country flight requirements.	25
62.83 Operations in Class B airspace and at airports located within Class B airspace.	26
62.85. Military Microlight pilots or former Military Microlight pilots: Special rules.	27
62.86 to 62.109 reserved.....	28
Subpart C	29
Private Free Balloon Pilot License	29
62.111 Private free balloon pilot license.....	29
Subpart D	31
Commercial free balloon pilot license	31
62.113 Commercial free balloon pilot license	31
Subpart E.....	34
Private Glider Pilot License	34
62.121 Requirements for issuance of the private glider* pilot license	34
62.115-62.119 Reserved	35
SUBPART F	36
Commercial motor glider pilot license	36
62.121 Commercial motor glider pilot license	36
62.122 -62.149 Reserved	37
Subpart G	38
Microlight Private Pilot License	38
62. 151 Requirements for issuance of the Microlight private pilot license	38
Subpart H	40
Microlight Commercial pilot license	40
62.153 Microlight Commercial pilot license	40
SUBPART I	42
Balloon, glider , motor glider and microlight Flight Instructor Ratings	42
62.155 APPLICABILITY.....	42
62.157 Requirements for the issuance of a free balloon flight instructor rating.....	42
62.159 Requirements for renewal of the free balloon flight instructor license	43
62.161 Glider* flight instructor rating	Error! Bookmark not defined.
62.163 Requirements for issuance of a Glider* flight instructor rating	43
62.165 Requirements for renewal of the glider* flight instructor rating	44
62.167 Microlight * ground and flight instructor rating	45
62.169 Requirements for issuance of a Microlight instructor rating	45
62.171 Requirements for renewal of the Microlight ground instructor rating.....	46
62.161 Requirements for renewal of the Microlight flight instructor rating	Error! Bookmark not defined.
APPENDIX A.....	47
Ground Examination Syllabus	47
For	47
Commercial Free Balloon Pilot's License(TOTAL 100 HR.)	47
1 Aviation Law, Flight Rules And Procedures	47
1.1.4 Air Traffic Rules and Services.....	47
1.1.5 Search and Rescue	47
2 NAVIGATION	47

2.2 Instruments.....	47
2.2.1 The principles of operation and the errors of the pressure altimeter; the meaning and uses of QNH, QFE, standard pressure setting, altitude, transition altitude, transition level,.....	47
2.2.2 The principles of operation and the errors of the magnetic compass.	47
2.2.3 The principles of operation of the vertical speed indicator.	47
2.3 Practical navigation.....	47
2.3.1 Track (true, magnetic, compass), wind velocity, groundspeed/distance/time/gas.....	47
2.3.2 Conversion of units: nautical miles, statute miles, feet, inches, kilometers, meters,.....	47
2.3.3 Determination of distance by scale calculation.	48
2.3.4 Given the relevant flight information and charts, predict a probable flight path with elapsed times/ETAs for prominent points, and.....	48
extract significant features from the charts including topographical and aeronautical data.	48
2.3.5 Given the relevant information, determine position by the use of topographical pinpoints and bearings, including simple VOR bearings.	48
3 METEOROLOGY	48
3.1 Properties of the atmosphere.....	48
3.1.1 Temperature: radiation, conduction and convection; variation of temperature near the earth's surface; variation of temperature with height; lapse rates, temperature inversions, troposphere, tropopause.	48
3.1.2 Pressure: definition; variation horizontally and vertically.....	48
3.1.3 Air density: variation at surface and with height.	48
3.1.4 Humidity: dew point; latent heat and change of state; evaporation, condensation,..... sublimation.....	48
3.1.5 Relationship between density, pressure, temperature and humidity; the International Standard Atmosphere.....	48
3.2 Wind.....	48
3.2.1 Relationship between wind and isobars; geotropic wind, gradient wind.	48
3.2.2 Variation of wind with height; elementary knowledge of thermal winds.	48
3.2.3 Local variation of wind with topography; diurnal; anabatic and katabolic effects, Fohn effect; land and sea breezes.....	48
3.2.4 Airflow over mountains; standing waves.	48
3.2.5 Gusts, squalls, turbulence; low-level wind shear.....	48
3.3 Clouds and precipitation	48
3.3.1 Stability and instability in the atmosphere.....	48
3.3.2 Types of cloud; methods of formation; height of base and vertical extent.....	48
3.3.3 Turbulence cloud; or graphic cloud; convection cloud.	48
3.3.4 Thunderstorms.	48
3.3.5 Precipitation associated with different types of cloud: drizzle, rain, snow, hail.	48
3.3.6 Operating hazards associated with various types of cloud and precipitation.	48
3.4 Visibility	48
3.4.1 Fog, mist, haze and their differences.	48
3.4.2 Formation of radiation fog and advection fog, diurnal and seasonal variation.	48
3.4.3 Vertical and oblique visibility; runway visual range.	48
3.5 Ice Accretion.....	48
3.5.1 Flight procedure in icing conditions.	48
3.6 Air masses and fronts.....	48
3.6.1 Classification and characteristics of air masses.....	48
3.6.2 Characteristics of warm and cold fronts and occlusions.....	48
3.6.3 Depressions, anticyclones, cols: associated weather.	48
3.7 The Weather Map	48
3.7.1 Interpretation of symbols and figures used on weather charts.	48
3.7.2 The development and movement of simple pressure systems and fronts.....	48
3.7.3 Elementary forecasting.	48

3.8 Observations	48
3.8.1 Knowledge of standard methods of measuring pressure, temperature, humidity, cloud height, visibility, surface wind, upper wind.....	48
3.9 Sources of meteorological information and its presentation.....	48
3.9.1 Weather call and special arrangements for balloon operators.	48
3.9.2 Vomit.	48
3.9.3 Decoding of TAF and METAR.	48
3.9.4 Comprehension and interpretation of flight forecast documents (significant weather and low level wind charts in particular).	49
4 AIRCRAFT (GENERAL) (BALLOONS)	49
4.1 This written examination is based on the knowledge areas specified in this section.	49
4.2 Systems	49
4.2.1 Fuel systems and burners :	49
4.2.2 Propane:	49
4.2.3 Deflation	49
4.2.4 Equipment and instruments – altimeter, vertical speed indicator (vario), thermostat,	49
4.3 Balloon performance.....	49
4.3.1 Factors that may affect fuel consumption, burner output (pressure and ambient temperature). Use of nitrogen pressure systems.....	49
4.3.2 Knowledge of the terms: equilibrium, inertia, momentum, false lift, terminal velocity, curl over, lift, weighing off.	49
4.3.3 Operational limitations, loading and limitations and the reasons for imposing those limits (to include normal and maximum rates of climb and descent, envelope temperature maximum and continuous).....	49
4.3.4 The factors to be considered in preparation for, and the execution of:.....	49
4.3.5 Factors that may affect performance: altitude, wind, terrain.	50
4.4 Balloon maintenance: qualifications, C of A requirements, routine maintenance, minor repairs, inspection schedules, fabric overheating, deflation system, fire extinguisher.....	50
4.5 Flight characteristics.	50
4.6 Accidents and incidents.	50
4.7 Documents.	50
4.8 Aero medical.	50
4.8.1 Basic knowledge of first aid and use of generally available kits.	50
4.8.2 Physiological factors: the senses, spatial disorientation and sensory illusions.....	50
4.8.3 Effects of colds, alcohol and drugs.	50
4.8.4 Recognition of the effects of hypoxia and carbon monoxide, and knowledge of their dangers.	50
5 AIRCRAFT (TYPE) (BALLOONS)	50
5.1 This is an examination, conducted by an ECAA authorized examiner and confined to the type of balloon upon which the candidate is being flight-tested.....	50
5.2 Flight Manual.....	50
5.3 Balloon systems specific to type used during flight test.	50
6 Human Performance And	50
6.1 This syllabus is divided into four main topic areas:	50
6.2 Basic Aviation Physiology and Health Maintenance.....	50
6.2.1 <i>Basic Physiology and the Effects of Flight</i> Anatomy and physiology of the eye, ear, vestibular, circulatory and respiratory systems.	50
6.2.2 Flying and Health.....	50
6.3 Basic Aviation Psychology	50
6.4 Stress and Stress Management.....	51
6.4.1 <i>Models and Effects of Stress</i>	51
6.4.2 Sleep and Fatigue.....	51
6.5 Social Psychology.....	51

6.5.1 Individual Differences, Social Psychology and Interaction with Others.....	51
6.5.2 Judgment.....	51
Appendix (B)	52
Ecaa Free Balloon Commercial Pilot License	52
General Flight Check (Gfc)	52
1 Syllabus And Conditions For The Check For Balloons	52
2 General Flight Check Content	52
3 Flight Check Pass Conditions	52
4 General Flight Check Results Period Of Validity	52
5 Flight Check Arrangements	52
6 General Flying Check	52
6.1 Section 1	52
1.0 Pre-flight	52
1.1 Preparation for flight.....	52
1.2 Pre-inflation	52
1.3 Inflation.....	52
6.2 Section 2 tethered flight if applicable	52
6.3 Section 3	52
General Handling	52
3.1 Take off.....	52
3.2 Level Flight.....	52
3.3 Climb	52
3.4 Descent.....	52
3.5 Approaches	52
3.6 Emergencies.....	52
3.7 Landing	52
3.8 Action after flight.....	52
3.9 Fuel Management	52
3.10 ATC liaison.....	52
6.3 Section 4	52
4.0 Navigation.....	52
4.1 Weather assessment	52
4.2 Use of maps, charts etc	52
4.3 ATC Liaison	52
4.4 Position Fixing.....	52
4.5 Fuel Planning	52
4.6 Airmanship.....	52
7 Expanded Syllabus.....	52
7.1 Section 1 – Pre-Flight	52
7.1.1 Preparation For Flight.....	52
7.1.2 Pre-Inflation	53
7.2 Section 2 – tethered flight – if applicable	54
7.3 Section 3 – General Handling	54
7.3.1 Take-off	54
7.3.2 Level flight.....	54
7.3.3 Climb and transition to level flight	54
7.3.4 Descent and transition to level flight	54
7.3.5 Approach and overshoot	54
7.3.6 Emergencies.....	54
7.3.7 Landing	55
7.3.8 Action after flight.....	55
7.3.9 Fuel management.....	55
7.3.10 ATC liaison.....	55

7.4 Section 4 – Navigation.....	55
7.4.1 Weather	55
7.4.2 Use of maps and charts	55
7.4.3 ATC Liaison.....	55
7.4.4 Position Fixing	55
7.4.5 Fuel management.....	55
Appendix C	56
Balloon Grouping.....	56
Balloon Size	56
Appendix D.....	57
Microlight Training Program	57
1 Course Contents	57
1.1 PHASE 1: FAMILIARISATION EXERCISES AND FOUNDATION (3 hours).....	57
1.3 PHASE 2: THE BASIC FLIGHT MANOEUVRES (1 week)	57
1.5 PHASE 3: SLOW SPEED HANDLING (1 week)	57
1.7 PHASE 4: TAKE-OFF, LANDING AND CIRCUIT FLYING (1 week).....	57
1.9 PHASE 5: ADVANCED HANDLING (3 days)	57
1.21 PHASE 6: OPERATIONAL HAZARDS, EMERGENCY PROCEDURES AND UNEXPECTED/UNPLANNED OCCURRENCES (4 days).....	57
1.23 PHASE 7: SOLO FLIGHT TRAINING (2 days)	58
1.25 PHASE 8: NAVIGATION (3 days)	58
1.27 PHASE 9: PREPARATION FOR THE GENERAL SKILLS TEST AND GROUND ORAL EXAM (2 days).....	58
2 Course details.....	58
2.1 Introduction.....	58
2.3 Exercise 1 - Aircraft Familiarisation.....	58
2.5 Exercise 2 - Preparation for flight and Action after flight	59
2.7 Exercise 3 - Air experience	59
2.9 Exercise 4 - Effects of Controls	59
2.11 Exercise 5 - Taxiing	59
2.13 Exercise 6 - Straight and Level flight	60
2.15 Exercise 7 -> Climbing : Exercise 8 -> Descending.....	60
2.17 Exercise 9a - Medium Level Turns.....	60
2.19 Exercise 9b - Climbing and Descending turns.....	60
2.21 Exercise 10a - Slow Flight.....	60
2.23 Exercise 10b - Stalling	61
2.25 Exercise 11 - Spin awareness.....	61
2.27 Exercise 12 - Takeoff and Climb to Downwind Position : Ex 13 Circuit, Final Approach and Landing	61
2.29 Exercise 14 - Advanced Turning (up to 60 degrees of Bank).....	61
2.31 Exercise 15 - Unusual Attitudes and Dangerous Conditions of flight.....	62
2.33 Exercise 16a (Parts 1 and 2) - Forced Landings Without/With power	62
2.35 Exercise 16b - Operation at minimum level	62
2.37 Exercise 17a - First Solo Flight	62
2.39 Exercise 17b - Solo circuit, local area, general flying consolidation.....	63
2.41 Exercise 17c - Dual revision for General Skills Test.....	63
2.43 Exercise 18 - Pilot Navigation	63
2.45 General Skills Test.....	64

Subpart A

General

62.1 Applicability.

This part prescribes , the requirements for issuing balloon, glider , motor glider and microlight pilots licenses and flight instructor rating , certificates, and/or ratings; the conditions under which those licenses and ratings are necessary; and the privileges and limitations of those licenses and ratings.

62.2 Definitions.

For the purpose of this part:

Aeronautical experience means balloon, glider , motor glider pilot and microlight pilot time obtained in balloon, glider , motor glider and microlight used for meeting the appropriate training and flight time requirements for an airman license, rating, or reGENCY of flight experience requirements of this part.

Authorized instructor

A person who holds a current flight instructor license issued under Part 62 of the ECARs when conducting ground training or flight training in accordance with the privileges and limitations of his or her flight instructor rating .

Cross-country time means :

Time acquired during flight:

- Conducted by a person who holds balloon, glider , motor glider pilot and microlight pilot license;
- Conducted in balloon, glider , motor glider pilot and microlight pilot .
- That includes a landing at a point other than the point of departure; and
- That involves the use of pilot age, to navigate to the landing point.
- For the purpose of meeting the aeronautical experience requirements, for a private balloon, glider , motor glider and microlight pilot license, a commercial balloon, glider , motor glider pilot and microlight pilot license .

Examiner means any person who is authorized by the ECAA to conduct balloon, glider , motor glider and microlight pilot proficiency test or a practical test in accordance with the ECAA Examination Standards Handbook for an airman license or rating issued under this part, or a person who is authorized by the ECAA to conduct a knowledge test under this part.

Flight training means that training, other than ground training, received from an authorized instructor in flight in balloon or glider , motor glider and microlight.

Balloon, glider , motor glider and microlight pilot time:

means that time in which a person:

- Serves as a required balloon, glider , motor glider and microlight pilot;
- Receives training from an authorized instructor in balloon, glider , motor glider and microlight .
- Gives training as an authorized instructor in balloon, glider , motor glider and microlight.

Practical test means a test on the skills requirements for an airman license, rating, or authorization that is conducted by having the applicant respond to questions and demonstrate maneuvers in balloon, glider , motor glider and microlight.

Training time means training received:

- In flight from an authorized instructor;
- On the ground from an authorized instructor;

Initial operating experience (IOE) means :

A time acquired during flight to provide operating experience to the balloon pilot during the operation of the balloon .

Glider when used for the purposes of this subpart is a non-power-driven heavier-than-air aircraft.

Glider* when used for the purposes of this subpart means either a non-powered (glider) or a powered (motor glider) aircraft.

Microlight : when used for the purposes of this subpart means microlight aeroplane is one designed to carry not more than two persons which has a Maximum Total Weight Authorised (MTWA) not exceeding: 300 kg for a single seat and 650 Kg for a dual seat plane.

62.3 Requirement for licenses, ratings, and authorizations.

- (a) Balloon, glider , motor glider Pilot license and microlight . A person may not act as balloon, glider , motor glider pilot and microlight pilot in command as a required balloon, glider , motor glider pilot and microlight pilot of A.R.E registry, unless that person:

- (1) Has a valid balloon, glider , motor glider pilot and microlight pilot license or special purpose pilot authorization issued under this part in that person's physical possession or readily accessible in balloon, glider , motor glider and microlight when exercising the privileges of that balloon, glider , motor glider and microlight pilot license or authorization., and
- (2) Has a photo identification that is in that person's physical possession or readily accessible in balloon, glider , motor glider pilot and microlight when exercising the privileges of that balloon, glider , motor glider pilot and microlight pilot license or authorization. The photo identification must be a:
 - (i) Government identification card issued by the Egyptian government;
 - (ii) Official passport; or
 - (iii) Other form of identification that the ECAA finds acceptable.
- (b) Medical certificate:
 - (1) A person may not act as balloon, glider , motor glider pilot and microlight pilot in command under a license issued to that person under this part, unless that person has a current and appropriate medical certificate that has been issued under part 67 of the ECARs.
- (c) Flight instructor rating:
 - (1) A person who holds a flight instructor rating issued under this part must have that rating , or other documentation acceptable to the ECAA, in that person's physical possession or readily accessible in balloon, glider , motor glider and microlight pilot when exercising the privileges of that flight instructor rating.
 - (2) No person other than the holder of a balloon, glider , motor glider and microlight pilot flight instructor rating issued under this part with the appropriate rating may:
 - (i) Give training required to qualify a person for solo flight and solo cross-country flight;
 - (ii) Endorse an applicant for a:
 - (A) Balloon, glider , motor glider and microlight pilot Pilot license or rating issued under this part;
 - (B) Balloon, glider , motor glider and microlight pilot Flight instructor rating issued under this part .
 - (C) Age limitation for certain operations:
The ECAA may not allow a person who has reached his or her 60th birthday, to act as a balloon, glider , motor glider pilot and microlight pilot .

62.5 Licenses and ratings issued under this part.

- (a) The following licenses and ratings are issued under this part to an applicant who satisfactorily accomplishes the training and licensing requirements for the license and rating sought:
 - (1) Pilot licenses:
 - (i) Balloon, glider , motor glider and microlight pilot Student pilot.
 - (ii) Balloon, glider , motor glider and microlight pilot Private pilot.
 - (iii) Balloon, glider , motor glider and microlight pilot Commercial pilot.
 - (2) Flight instructor rating .
- (b) The following ratings are placed on Balloon, glider , motor glider and microlight pilot license (other than student pilot) when an applicant satisfactorily accomplishes the training and licensing requirements for the rating sought:
 - (1) Aircraft category ratings:
 - (i) Glider and motor glider .
 - (ii) Lighter – than air .
 - (iii) Microlight
 - (2) lighter –than air class ratings:
 - (i) Air ship .
 - (ii) Balloon .
 - (3) Microlight Class rating's
 - (i) Single seat
 - (ii) Dual seat
- (c) Balloon ratings .
 - (1) Balloon Ratings are issued in the balloon category, and are related to the class and size of the balloon in which the Pilot wishes to exercise the license privileges. Class is specified by

reference to lifting agency. There are 4 such classes, each being further divided into 4 Groups based upon envelope capacity, as follows:

(i) Balloon Classes:

Class 1- Hot air

Class 2- Gas filled

Class 3- Pressurized

Class 4- Combination gas and hot air

(ii) Balloon Groups: (Ref. Appendix C of this part):

Group A:

Initial issue of Commercial free balloon Pilot License or a commercial pilot Airplane with a Balloon Rating limited to balloons of an envelope volume not exceeding 3400 cubic meters (120.069 cubic feet).

Group B:

Balloons of an envelope volume exceeding 3400 cubic meters (120.069 cubic feet) but not exceeding 9000 cubic meters (316,800 cubic feet).

Group C:

Balloons of an envelope volume exceeding 9000 cubic meters (316,800 cubic feet) but not exceeding 12000 cubic meters (422,400 cubic feet)

Group D:

Balloons of an envelope volume greater than 12000 cubic meters (422,400 cubic feet)

Note :

A license holder with a valid Free Balloon Rating for a Class and Group of balloon may fly any balloon within the same Class and Group.

62.7 Expired balloon, glider , motor glider and microlight pilot licenses and resistance.

- (a) No person who holds an expired balloon, glider , motor glider and microlight pilot license or rating may:
 - (1) Exercise the privileges of that balloon, glider , motor glider and microlight pilot license or rating; or
 - (2) Act as balloon, glider , motor glider and microlight pilot pilot in command of the same category and class specified on the expired pilot license or rating.
- (b) A balloon, glider , motor glider and microlight pilot pilot license issued on the basis of a foreign balloon, glider , motor glider and microlight pilot license will expire on the date the foreign license expires unless otherwise specified on the A.R.E. balloon, glider , motor glider and microlight pilot license.

62.9 Issuance of balloon, glider , motor glider pilot and microlight licenses, ratings, and authorizations.

(a) Application:

- (1) An applicant for an airman license, rating, or authorization under this part must make that application on a form and in a manner acceptable to the ECAA.
- (2) An applicant who is neither a citizen of the Arab Republic of Egypt nor a resident alien of the Arab Republic of Egypt may be refused issuance of any A.R.E. airman licenses, rating, or authorization by the ECAA.
- (3) Except as provided in paragraph (a)(2) of this section an applicant who satisfactorily accomplishes the training and certification requirements for the license, rating, or authorization sought is entitled to receive that airman license, rating, or authorization.

(b) Application during suspension or revocation:

- (1) Unless otherwise authorized by the ECAA, a person whose balloon, glider , motor glider and microlight pilot, flight instructor, rating has been suspended may not apply for any license, rating, or authorization during the period of suspension.
- (2) Unless otherwise authorized by the ECAA, a person whose balloon, glider , motor glider and microlight pilot, flight instructor, rating has been revoked may not apply for any license, rating, or authorization for 1 year after the date of revocation.

62.11 Refusal to submit to a drug or alcohol test.

- (a) This section applies to an employee who performs a function listed in appendix I to part 121 or appendix J to part 121 of the ECARs directly or by contract for a part 121 air carrier.

(b) Refusal by the holder of a license issued under this part to take a drug test required under the provisions of appendix I to part 121 or an alcohol test required under the provisions of appendix J to part 121 is grounds for:

- (1) Denial of an application for any license, rating, or authorization issued under this part for a period of up to 1 year after the date of such refusal; and
- (2) Suspension or revocation of any license, rating, or authorization issued under this part.

**62.12 Drug test and ECAA enforcement action for initial and renewal license assessment:-
(From 01/01/2023) this regulation will be applied**

(A)Drug Testing For Psychoactive Substances :

- (a) Applicants / License holders of all classes shall undergo a drug screening test as part of their initial /renewal medical examination. and they will not intend to exercise the privileges of their license and related rating while under the influence of psychoactive substance which might render them unable to safely and properly exercise these privileges.
- (b) Applicant / License holder shall not engage in any problematic use of substances.
- (c) Applicant/License holder may be subjected to random test according to AME decision to indicate the use of Alcohol and /or psychoactive substances.
- (d) Samples (urine sample ,) for drug testing shall be examined only by ECAA approved laboratories at Aero medical Council Central Administration
- (e)Procedures for Collecting urine samples to detect drug abuse is according to EAC 67-01 regulations

List of the drugs to be tested:

- 1) Cannabis (Marijuana) and its metabolites.
- 2) Cocaine and its metabolites.
- 3) Opiates with Morphine and metabolites.
- 4) Amphetamines.
- 5) Barbiturates.
- 6) Benzodiazepines
- 7) others if needed

(B)Positive Drug Testing :

Drug testing results are positive for prohibited drugs in the following conditions :

- (1) Positive for cannabinoids , cocaine and / or hallucinogens .
- (2) Positive for sedative hypnotics , opioids and / or amphetamine proved to be for non medical use
- (3) Refusal to submit to drug testing .
- (4) Leaving the Aeromedical council if a confirmatory test is required
- (5) Refusal or not comply with ECAA procedure for urine samples to detect drug abuse stated EAC 67-01

(a)Consequences of Positive Drug testing:

A second sample is obtained at once for a confirmatory test in accordance with ECA76-01 regulations

If second sample is positive for :

- 1- Cannabnois, cocain , or hallucinogens :
Notify ECAA to take the proper enforcement action.
- 2- Sedative hypnotics (Benzodiazepines , Barbiturates ,), opioids and amphetamine:
The applicant / License holder must be evaluated by the neuropsychiatrist to confirm if the drug test is positive because of certain medical use of a specific drug that contain a prohibited substance,

the applicant/license holder must provide evidence of this medical use such as a written prescription or a written physician's recommendation. And the applicant / License holder has to be

grounded for 1 week or until he or she is no longer under influence of this substance. After 1 week a new drug test shall be performed and the applicant / License holder is evaluated by the neuropsychiatrist.

- a- If the drug test is negative and the candidate is properly evaluated by the neuropsychiatrist and the second stated that the applicant / License holder is no longer under influence or taking a prohibited drug for a non-medical or addiction use the applicant / License holder, he will be issued the license and subjected to follow up according to ECAA medical regulations
- b- If not complied by (a) he or she will be denied their license and ECAA is notified to take the proper enforcement action.

(b) A positive drug testing after confirmatory sample as in (B : 1 , 2 or as 3,4 and 5) the following shall be done :

- i. The applicant / license holder shall be notified immediately by e-mail , SMS , recorded phone message or WhatsApp message .
- ii. In case of rejecting the results the applicant / License holder has the right to appeal within two (2) working days and upon his request ; the objected sample (the previously confirmed + ve sample for drugs) shall be re-examined , and the results are final .
- iii. ECAA shall be officially notified with the final result for implementing the proper enforcement action according to related laws and regulations .

(C) Enforcement :

- (1) For first time (confirmed positive drug test) the ECAA will suspend the license for two years .
- (2) For second time (confirmed positive drug test) the ECAA will revoke the license and the applicant can not apply for any kind of aviation license .

Definitions :

- Suspended : temporary withholding the license .
- Revoked : completely termination (cancel) of the license .

62.13 Offenses involving alcohol or drugs.

- (a) A conviction for the violation of any Governmental statute relating to the growing, processing, manufacture, sale, disposition, possession, transportation, or importation of narcotic drugs, marijuana, or depressant or stimulant drugs or substances is grounds for:
 - (1) Denial of an application for any license, rating, or authorization issued under this part for a period of up to 1 year after the date of final conviction; or
 - (2) Suspension or revocation of any license, rating, or authorization issued under this part.
- (b) Committing an act prohibited by parts of the ECARs is grounds for:
 - (1) Denial of an application for a license, rating, or authorization issued under this part for a period of up to 1 year after the date of that act; or
 - (2) Suspension or revocation of any license, rating, or authorization issued under this part.
- (c) For the purposes of paragraphs (d), (e), and (f) of this section, a motor vehicle action means:
 - (1) The violation of any Governmental statute relating to the operation of a motor vehicle while intoxicated by alcohol or a drug, while impaired by alcohol or a drug, or while under the influence of alcohol or a drug;
 - (2) The cancellation, suspension, or revocation of a license to operate a motor vehicle for a cause related to the operation of a motor vehicle while intoxicated by alcohol or a drug, while impaired by alcohol or a drug, or while under the influence of alcohol or a drug; or
 - (3) The denial of an application for a license to operate a motor vehicle for a cause related to the operation of a motor vehicle while intoxicated by alcohol or a drug, while impaired by alcohol or a drug, or while under the influence of alcohol or a drug.
- (d) Except for a motor vehicle action that results from the same incident or arises out of the same factual circumstances, a motor vehicle action occurring within 3 years of a previous motor vehicle action is grounds for:
 - (1) Denial of an application for any license, rating, or authorization issued under this part for a period of up to 1 year after the date of the last motor vehicle action; or
 - (2) Suspension or revocation of any license, rating, or authorization issued under this part.

- (e) Each person holding a license issued under this part shall provide a written report of each motor vehicle action to the ECAA, Civil Aviation Security Division, Airport Road Ministry of Civil Aviation Complex, Cairo, Egypt, not later than 60 days after the motor vehicle action. The report must include:
 - (1) The person's name, address, date of birth, and airman license number;
 - (2) The type of violation that resulted in the conviction or the administrative action;
 - (3) The date of the conviction or administrative action;
 - (4) The Governmental Authority that holds the record of conviction or administrative action; and
 - (5) A statement of whether the motor vehicle action resulted from the same incident or arose out of the same factual circumstances related to a previously reported motor vehicle action.
- (f) Failure to comply with paragraph (e) of this section is grounds for:
 - (1) Denial of an application for any license, rating, or authorization issued under this part for a period of up to 1 year after the date of the motor vehicle action; or
 - (2) Suspension or revocation of any license, rating, or authorization issued under this part.

62.15 Refusal to submit to an alcohol test or to furnish test results.

A refusal to submit to a test to indicate the percentage by weight of alcohol in the blood, when requested by a law enforcement officer in accordance with section 91.17(c) of the ECARs, or a refusal to furnish or authorize the release of the test results requested by the ECAA in accordance with section 91.17(c) or (d) of the ECARs, is grounds for:

- (a) Denial of an application for any license, rating, or authorization issued under this part for a period of up to 1 year after the date of that refusal; or
- (b) Suspension or revocation of any license, rating, or authorization issued under this part.

62.17 (Reserved)

62.19 Security disqualification.

- (a) Eligibility standard. No person is eligible to hold a license, rating, or authorization issued under this part when the Department of National Security (DNS) has notified the ECAA in writing that the person poses a security threat.
- (b) Effect of the issuance by the DNS of a Notification of Security Threat.
 - (1) The ECAA will suspend any person's license, rating, or authorization issued under this part if the DNS notifies the ECAA of a security threat investigation involving that person.
 - (2) The ECAA will revoke any license, rating, or authorization issued under this part if the person under investigation is determined to pose a security threat.

62.21 Duration of balloon, glider , motor glider and microlight pilot licenses and instructor rating.

- (a) General. The holder of balloon, glider , motor glider and microlight pilot license and instructor rating with an expiration date may not, after that date, exercise the privileges of that license and rating .
- (b) Student balloon, glider , motor glider and microlight pilot license. A student balloon, glider , motor glider and microlight pilot license expires 24 calendar months from the month in which it is issued.
- (c) Private balloon, glider , motor glider and microlight pilot license. A student balloon, glider , motor glider and microlight pilot license expires 12 calendar months from the month in which it is issued.
- (d) commercial balloon, glider , motor glider and microlight pilot license. A student balloon, glider , motor glider and microlight pilot license expires 6 calendar months from the month in which it is issued.
- (e) Flight instructor rating :
 - (1) Is effective only while the holder has a current pilot license; and
 - (2) Expires 12 calendar months from the month in which it was issued or renewed.
- (f) Surrender, suspension, or revocation. Any license issued under this part ceases to be effective if it is surrendered, suspended, or revoked.
- (g) Return of licenses. The holder of any license issued under this part that has been suspended or revoked must return that license to the ECAA when requested to do so by the ECAA.

62.23 Medical certificates: Requirement and duration.

- (a) Operations requiring a medical certificate. a person must hold a second-class medical certificate:

- (1) When exercising the privileges of student balloon, glider , motor glider and microlight pilot license;
 - (2) When exercising the privileges of private balloon, glider , motor glider and microlight pilot license;
 - (3) when exercising the privileges of a commercial balloon, glider , motor glider and microlight pilot license; or
 - (4) when exercising the privileges of a flight instructor rating .
- (b) Duration of a medical certificate. Ref. to ECAR Part 67.9

62.25 Change of name.

- (a) An application to change the name on a license issued under this part must be accompanied by the applicant's:
- (1) Current airman license; and
 - (2) A copy of the marriage certificate, court order, or other document verifying the name change.
- (b) The documents in paragraph (a) of this section will be returned to the applicant after inspection.

62.27 language proficiency.

- (a) Balloon, glider , motor glider and microlight pilots who are required to use the radio telephone aboard an aircraft shall demonstrate the ability to speak and understand the language normally used by the station on the ground or English
- (b) From 5 March 2008, balloon, glider , motor glider and microlight pilots, shall demonstrate the ability to speak and understand the language used for radiotelephony communications to the level specified in the language proficiency requirements in (EAC00_21). The language proficiency required must be at least Operational Level (level 4) of the ICAO Language Proficiency Rating (EAC 00_21)
- (c) From 5 March 2008, the language proficiency of balloon, glider , motor glider and microlight pilots who demonstrate proficiency below the Expert Level (Level 6) as specified in the language proficiency requirements in (EAC00_21) shall be formally evaluated by the ECAA or an organization approved by the ECAA at intervals in accordance with an individual's demonstrated proficiency level as follows:
- (1) those demonstrating language proficiency at the Operational Level (Level 4) should be evaluated at least once every three years; and
 - (2) those demonstrating language proficiency at the Extended Level (Level 5) should be evaluated at least once every six years.
- (d) From 5 March 2008, existing licenses shall have a Language Proficiency endorsement.

62.29 Voluntary surrender or exchange of license.

- (a) The holder of a license issued under this part may voluntarily surrender it for:
- (1) Cancellation;
 - (2) Issuance of a lower grade license; or
 - (3) Another license with specific ratings deleted.
- (b) Any request made under paragraph (a) of this section must include the following signed statement or its equivalent: "This request is made for my own reasons, with full knowledge that my (insert name of certificate or rating, as appropriate) may not be reissued to me unless I again pass the tests prescribed for its issuance."

62.31 Replacement of a lost or destroyed airman license or medical certificate or knowledge test report.

- (a) A request for the replacement of a lost or destroyed airman license issued under this part must be made by letter to the Ministry of Civil Aviation, ECAA, Airmen Licensing Branch, Ministry of civil aviation complex Airport Road, Cairo, Egypt, and must be accompanied by a check or money order for the appropriate fee payable to the ECAA.
- (b) A request for the replacement of a lost or destroyed medical certificate must be made by letter to the Ministry of Civil Aviation, ECAA, Aero medical Certification Branch, Ministry of civil aviation complex Airport Road, Cairo, Egypt,, and must be accompanied by a check or money order for the appropriate fee payable to the ECAA.
- (c) A request for the replacement of a lost or destroyed knowledge test report must be made by letter to the Ministry of Civil Aviation, ECAA, Airman Licensing Branch, Ministry of civil aviation

complex Airport Road, Cairo, Egypt, and must be accompanied by a check or money order for the appropriate fee payable to the ECAA.

- (d) The letter requesting replacement of a lost or destroyed airman license, medical certificate, or knowledge test report must state:
- (1) The name of the person;
 - (2) The permanent mailing address (including ZIP code), or if the permanent mailing address includes a post office box number, then the person's current residential address;
 - (3) The national ID number;
 - (4) The date and place of birth of the license or certificate holder; and
 - (5) Any available information regarding the:
 - (i) Grade, number, and date of issuance of the license, certificate, and the ratings, if applicable;
 - (ii) Date of the medical examination, if applicable; and
 - (iii) Date the knowledge test was taken, if applicable.

62.33 Tests: General procedure.

Tests prescribed by or under this part are given at times and places, and by persons designated by the ECAA.

62.35 Knowledge test: Prerequisites and passing grades.

- (a) An applicant for a knowledge test must have:
- (1) Received an endorsement, if required by this part, from an authorized instructor certifying that the applicant accomplished the appropriate ground-training or a home study course required by this part for the license or rating sought and is prepared for the knowledge test; and
 - (2) Proper identification at the time of application that contains the applicant's:
 - (i) Photograph;
 - (ii) Signature;
 - (iii) Date of birth, which shows the applicant meets or will meet the age requirements of this part for the license sought before the expiration date of the airman knowledge test report; and
 - (iv) Actual residential address, if different from the applicant's mailing address.
- (b) The ECAA shall specify the minimum passing grade for the knowledge test.

62.37 Knowledge tests: Cheating or other unauthorized conduct.

- (a) An applicant for a knowledge test may not:
- (1) Copy or intentionally remove any knowledge test;
 - (2) Give to another applicant or receive from another applicant any part or copy of a knowledge test;
 - (3) Give assistance on, or receive assistance on, a knowledge test during the period that test is being given;
 - (4) Take any part of a knowledge test on behalf of another person;
 - (5) Be represented by, or represent, another person for a knowledge test;
 - (6) Use any material or aid during the period that the test is being given, unless specifically authorized to do so by the ECAA; and
 - (7) Intentionally cause, assist, or participate in any act prohibited by this paragraph.
- (b) An applicant who the ECAA finds has committed an act prohibited by paragraph (a) of this section is prohibited, for 1 year after the date of committing that act, from:
- (1) Applying for any license, rating, or authorization issued under the ECARs; and
 - (2) Applying for and taking any test under the ECARs.
- (c) Any license or rating held by an applicant may be suspended or revoked if the ECAA finds that person has committed an act prohibited by paragraph (a) of this section.

62.39 Prerequisites for practical tests.

To be eligible for a practical test for a license or rating issued under this part, an applicant must:

- (a) Pass the required knowledge test within the 24-calendar-month period preceding the month the applicant completes the practical test, if a knowledge test is required;
- (b) Present the knowledge test report at the time of application for the practical test, if a knowledge test is required;
- (c) Have satisfactorily accomplished the required training and obtained the aeronautical experience prescribed by this part for the license or rating sought;

- (d) Hold at least a appropriate class medical certificate, if a medical certificate is required;
- (e) Meet the prescribed age requirement of this part for the issuance of the license or rating sought;
- (f) Have an endorsement, if required by this part, in the applicant's logbook or training record that has been signed by an authorized instructor who certifies that the applicant:
 - (1) Has received and logged training time within 60 days preceding the date of application in preparation for the practical test;
 - (2) Is prepared for the required practical test; and
 - (3) Has demonstrated satisfactory knowledge of the subject areas in which the applicant was deficient on the airman knowledge test; and
 - (4) Have a completed and signed application form.

62.41 (Reserved).

62.43 Practical tests: General procedures.

- (a) The ability of an applicant for a license or rating issued under this part to perform the required tasks on the practical test is based on that applicant's ability to safely:
 - (1) Perform the tasks specified in the areas of operation for the license or rating sought within the approved standards;
 - (2) Demonstrate mastery of the balloon, glider , motor glider and microlight with the successful outcome of each task performed never seriously in doubt;
 - (3) Demonstrate satisfactory proficiency and competency within the approved standards;
 - (4) Demonstrate sound judgment; and
 - (5) Demonstrate single-pilot competence if the balloon, glider , motor glider and microlight is type certificated for single-pilot operations.
- (b) If an applicant fails any area of operation, that applicant fails the practical test.
- (c) An applicant is not eligible for a license or rating sought until all the areas of operation are passed.
- (d) The examiner or the applicant may discontinue a practical test at any time:
 - (1) When the applicant fails one or more of the areas of operation; or
 - (2) Due to inclement weather conditions, aircraft airworthiness, or any other safety-of-flight concern.

62.45 Status of an examiner who is authorized by the ECAA to conduct practical tests.

- (a) An examiner represents the ECAA for the purpose of conducting practical tests for licenses and ratings issued under this part and to observe an applicant's ability to perform balloon, glider , motor glider and microlight the skills requirements on the practical test.
- (b) The examiner is not the pilot in command of the aircraft during the practical test unless the examiner agrees to act in that capacity for the flight or for a portion of the flight by prior arrangement with:
 - (1) The applicant; or
 - (2) A person who would otherwise act as pilot in command of the flight or for a portion of the flight.
- (c) Notwithstanding the type of balloon, glider , motor glider and microlight used during the practical test, the applicant and the examiner (and any other occupants authorized to be on board by the examiner) are not subject to the requirements or limitations for the carriage of passengers that are specified in this chapter.
- (d) Limitation of privileges in case of vested interests (Conflict of Interest): Examiners shall not conduct:
 - (1) Proficiency checks, skill tests or assessments of competence of applicants for the issue/renew of a license, rating or certificate to whom they have provided more than 25% of the required flight instruction for the license, rating or certificate for which the proficiency check, skill test or assessment of competence is being taken; and
 - (2) Proficiency checks, skill tests or assessments of competence whenever they feel that their objectivity may be affected. Examples of a situation where the examiner should consider if their objectivity is affected are when the applicant is a relative or a friend of the examiner, or when they are linked by economic interests or political affiliations, etc.

62.47 Retesting after failure.

An applicant for a knowledge or practical test who fails that test may reapply for the test only after the applicant has received:

- (a) The necessary training from an authorized instructor who has determined that the applicant is proficient to pass the test; and
- (b) An endorsement from an authorized instructor who gave the applicant the additional training.

62.49 Pilot logbooks.

(a) Training time and aeronautical experience. Each person must document and record the following time in a manner acceptable to the ECAA:

- (1) Training and aeronautical experience used to meet the requirements for a license, rating of this part.
- (2) The aeronautical experience required for meeting the recent flight experience requirements of this part.

(b) Logbook entries. For the purposes of meeting the requirements of paragraph (a) of this section, each person must enter the following information for each flight or lesson logged:

- (1) General:
 - (i) Date.
 - (ii) Total flight time or lesson time.
 - (iii) Location where the aircraft departed and arrived .
 - (iv) Type and identification of balloon, glider , motor glider and microlight
- (2) Type of pilot experience or training:
 - (i) Solo.
 - (ii) Pilot in command.
 - (iii) Flight and ground training received from an authorized instructor.
- (3) Conditions of flight: Day – VFR .

(c) Logging of pilot time. The balloon, glider , motor glider and microlight pilot time described in this section may be used to:

- (1) Apply for a license or rating issued under this part or a privilege authorized under this part; or
- (2) Satisfy the recent flight experience requirements of this part.

(d) Logging of solo flight time. Except for a student balloon, glider , motor glider and microlight pilot performing the duties of pilot in command of an airship requiring more than one pilot flight crewmember, a pilot may log as solo flight time only that flight time when the pilot is the sole occupant of the aircraft.

(e) Logging pilot-in-command flight time.

- (1) A balloon, glider , motor glider and microlight private or commercial pilot may log pilot-in-command time only for that flight time during which that person:
 - (i) Is the sole manipulator of the controls of balloon, glider, motor glider and microlight for which the pilot is rated or has privileges;
 - (ii) Is the sole occupant of the balloon, glider , motor glider and microlight; or
- (2) An authorized instructor may log as balloon, glider , motor glider and microlight pilot-in-command time all flight time while acting as an authorized instructor.
- (3) A student pilot may log pilot-in-command time only when the student pilot:
 - (i) Is the sole occupant of the balloon, glider , motor glider and microlight or is performing the duties of balloon, glider , motor glider and microlight pilot of command of an airship requiring more than one pilot flight crewmember;
 - (ii) Is undergoing training for a balloon, glider , motor glider and microlight pilot license or rating.

(f) Logging training time:

- (1) A person may log training time when that person receives training from an authorized instructor in a balloon, glider , motor glider and microlight.
- (2) The training time must be logged in a logbook and must:
 - (i) Be endorsed in a legible manner by the authorized instructor; and
 - (ii) Include a description of the training given, the length of the training lesson, and the authorized instructor's signature, license number, and license expiration date.

(g) Presentation of required documents.

- (1) Persons must present their balloon, glider , motor glider and microlight pilot license, medical certificate, logbook, or any other record required by this part for inspection upon a reasonable request by:
 - (i) The ECAA;

- (ii) An authorized representative from the MOCA Ministry of civil aviation (Central Administration for Aviation Accidents).
- (2) A balloon, glider , motor glider and microlight student pilot must carry the following items in the balloon, glider , motor glider and microlight on all solo cross-country flights as evidence of the required authorized instructor clearances and endorsements:
 - (i) Pilot logbook;
 - (ii) Student pilot license; and
 - (iii) Any other record required by this section.

62.51 Prohibition on operations during medical deficiency.

Operations that require a medical certificate. Except as provided for in Paragraph (b) of this section, a person who holds a current medical certificate issued under part 67 of the ECARs shall not act as balloon, glider , motor glider and microlight pilot in command, while that person:

- (a) Knows or has reason to know of any medical condition that would make the person unable to meet the requirements for the medical certificate necessary for the pilot operation; or
- (b) Is taking medication or receiving other treatment for a medical condition that results in the person being unable to meet the requirements for the medical certificate necessary for the pilot operation.

62.53 Recent flight experience: Balloon, glider , motor glider and microlight pilot in command.

- (a) General experience:
 - (1) No person may act as balloon, glider , motor glider and microlight pilot in command of balloon, glider, motor glider and microlight carrying passengers unless that person has made at least three takeoffs and three landings within the preceding 90 days, and:
 - (i) The person acted as the sole manipulator of the flight controls; and
 - (ii) The required takeoffs and landings were performed in balloon, glider, motor glider and microlight of the same category, class, and type .
 - (2) For the purpose of meeting the requirements of paragraph (a)(1) of this section, a person may act as balloon, glider , motor glider and microlight pilot in command of balloon, glider , motor glider and microlight under day VFR .

62.55 Falsification, reproduction, or alteration of applications, licenses, logbooks, reports, or records.

- (a) No person may make or cause to be made:
 - (1) Any fraudulent or intentionally false statement on any application for a license, rating, authorization, or duplicate thereof, issued under this part;
 - (2) Any fraudulent or intentionally false entry in any logbook, record, or report that is required to be kept, made, or used to show compliance with any requirement for the issuance or exercise of the privileges of any license, rating, or authorization under this part;
 - (3) Any reproduction for fraudulent purpose of any license, rating, or authorization, under this part; or
 - (4) Any alteration of any license, rating, or authorization under this part.
- (b) The commission of an act prohibited under paragraph (a) of this section is a basis for suspending or revoking any airman license, rating, or authorization held by that person.

62.57 Change of address.

The holder of balloon, glider , motor glider and microlight pilot license, flight instructor rating, who has made a change in permanent mailing address may not, after 30 days from that date, exercise the privileges of the license unless the holder has notified in writing the ECAA, Airman Licensing Branch, Airport Road ECAA Complex Cairo, Egypt, of the new permanent mailing address, or if the permanent mailing address includes a post office box number, then the holder's current residential address.

62.59 Balloon, glider , motor glider and microlight pilot license issued on the basis of a foreign pilot license.

- (a) General. A person who holds a current foreign private, commercial, balloon, glider , motor glider and microlight pilot license issued by a contracting State to the Convention on International Civil Aviation may apply for and be issued balloon, glider , motor glider and microlight pilot license with the appropriate ratings when the application is based on the foreign

- balloon, glider , motor glider and microlight pilot license that meets the requirements of this section.
- (b) License issued. An A.R.E. private balloon, glider , motor glider and microlight pilot license that is issued under this section shall specify the person's foreign license number and country of issuance. A person who holds a current foreign private balloon, glider , motor glider and microlight pilot license issued by a contracting State to the Convention on International Civil Aviation may be issued a private balloon, glider , motor glider and microlight pilot license based on the foreign balloon, glider , motor glider and microlight pilot license without any further showing of proficiency, and a person who holds a foreign commercial balloon, glider , motor glider and microlight pilot license is issued an A.R.E. commercial balloon, glider , motor glider and microlight pilot license with further showing of proficiency provided the applicant:
- (1) Meets the requirements of this section;
 - (2) Holds a foreign balloon, glider , motor glider and microlight pilot license that:
 - (i) Is not under an order of revocation or suspension by the foreign country that issued the foreign balloon, glider , motor glider and microlight pilot license; and
 - (ii) Does not contain an endorsement stating that the applicant has not met all of the standards of ICAO for that license;
 - (3) Does not currently hold an A.R.E. pilot license;
 - (4) Holds a current medical certificate issued under part 67 of the ECARs or a current medical certificate issued by the country that issued the person's foreign pilot license; and
 - (5) Is able to read, speak, write, and understand the English language.
 - (6) The applicant's who holds a foreign commercial balloon, glider , motor glider and microlight pilot license shall successfully complete the ECAA written exam on ECAR as determined by the ECAA;
- (c) Aircraft ratings issued.
- (1) Aircraft ratings listed on a person's foreign private balloon, glider , motor glider and microlight pilot license, may be placed on that person's A.R.E. pilot license.
 - (2) Aircraft ratings listed on a person's foreign balloon, glider , motor glider and microlight commercial pilot license, may be placed on that person's A.R.E. pilot license after satisfactorily accomplish practical test on balloon, glider , motor glider and microlight that meets balloon, glider , motor glider and microlight commercial pilot license requirements of this part.
- (d) Operating privileges and limitations. A person who receives an A.R.E. private, commercial balloon, glider , motor glider and microlight pilot license that has been issued under the provisions of this section:
- (1) May act as a pilot of balloon, glider , motor glider and microlight of A.R.E. registry in accordance with the private, commercial balloon, glider , motor glider and microlight pilot license privileges authorized by this part;
 - (2) Is limited to the privileges placed on the license by the ECAA;
 - (3) Shall not exercise the privileges of that A.R.E. private, commercial balloon, glider , motor glider and microlight pilot license when the person's foreign pilot license has been revoked or suspended.
- (e) Limitation on licenses used as the basis for an A.R.E. license. Only one foreign pilot license may be used as a basis for issuing an A.R.E. private, commercial balloon, glider , motor glider and microlight pilot license. The foreign pilot license and medical certification used as a basis for issuing an A.R.E. private, commercial balloon, glider , motor glider and microlight pilot license under this section must be in the English language.

62.61 Certification of foreign balloon, glider , motor glider and microlight pilots, flight-instructors.

- (a) Except as provided for in paragraph (b) of this section, an airman license issued under this Part may not be issued to a person who is not Egyptian citizen unless that person passes the appropriate practical test within Egypt.
- (b) A person who is not an Egyptian citizen may be issued an airman validation certificate and the practical test for that certificate may be administered within Egypt when:
- (1) The ECAA determines the person needs a pilot license to operate balloon, glider , motor glider and microlight of Egyptian. registry;
 - (2) The ECAA determines the person needs a flight instructor license rating to train persons who are Egyptian citizens;
 - (3) The validation certificate is for an addition of a category, class, an existing Egyptian balloon, glider , motor glider and microlight pilot validation certificate, provided that the airman has

not been issued a license on the basis of a foreign balloon, glider , motor glider and microlight pilot license;

- (4) The certificate is for an addition, renewal, or reinstatement of a category, class, onto an existing Egyptian flight instructor validation certificate; or
- (c) Validation of foreign balloon, glider , motor glider and microlight licenses and instructor rating:
 - (1) General: It is not an obligation to ECAA to validate foreign licenses, it is rather a privilege extended by ECAA:
 - (i) Licenses of foreign personnel can be validated when operating newly purchased or leased types of Egyptian registered balloon, glider , motor glider and microlight at an Egyptian operator; or
 - (ii) Validations are of short duration not exceeding 6 months, and not extended beyond the period of currency of either the original license or, in the case of a “non-expiring” license, the medical assessment and competency checks required. After six months, the ECAA will consider either issuing an equivalent Egyptian license based on the foreign license or renew the validation certificate for a further period of six months after ensuring the maintenance of continuing competency. Each time, the continued currency of the foreign license will be checked with regard to recent experience requirements of the foreign issuing authority. A similar check will be made of the medical assessment;
 - (iii) Validated license privileges and limitations will not exceed beyond the original license privileges;
 - (iv) The ECAA will exercise the same level of control over the foreign license holders as it does with its own nationals, and will ensure that safe levels of medical fitness and competency are being maintained; and
 - (v) Validations are in the form of a certificate to be carried with the original license.
 - (2) Issue validation certificate for holders of foreign commercial balloon, glider , motor glider and microlight pilot licenses:

To be eligible for the issuance, or renewal, of a validation certificate, an applicant must satisfactorily pass an examination on Egyptian Civil Aviation Law and appropriate regulations and any medical or proficiency tests required by ECAA as necessary. In addition he must present the following to the ECAA:

- (i) A current foreign balloon, glider , motor glider and microlight pilot license issued by the licensing authority of a foreign Contracting State issued in conformance with ICAO Annex 1 minimum requirements.
- (ii) An Egyptian work permit and security permit;
- (iii) A current certification by the operator of the aircraft;
 - (A) Stating that the operator is employing the applicant; and
 - (B) Specifying the balloon, glider , motor glider and microlight type on which the applicant will perform his duties.
- (iv) Official documentation showing that the applicant currently meets the medical standards for the foreign license required by the State that issued the applicant's foreign license;
- (v) Official documentation demonstrating that the applicant complies with all training, proficiency and regency of experience requirements; and
- (vi) The applicant's aviation background check, (containing information such as violations, incidents/accidents and enforcement actions in which he has been involved).
- (3) Privileges: The holder of a validated license may exercise the same privileges as those shown on the license specified in this section, subject to the limitations specified in this section.
- (4) Limitations. Each certificate issued under this section is subject to the following limitations:
 - (i) It is valid only:
 - (A) While the license required by paragraph (c)(2)(i) of this section is in the certificate holder's personal possession and is current;
 - (B) While the permits required by paragraph (c)(2)(ii) of this section are valid; and while the certificate holder is employed by the person to whom the balloon, glider , motor glider and microlight described in the certification required by paragraph (3) of this section is owned, operated and/or leased;
 - (C) While the certificate holder is performing his duties on the registered civil balloon, glider , motor glider and microlight described in the certification required by paragraph (c)(2)(iii) of this section; and

- (D) While the medical documentation required by paragraph (c)(5)(iv) of this section is in the certificate holder's personal possession and is currently valid.
- (ii) Each validation certificate issued under this section contains at least the following:
 - (A) The name of the person to whom the registered balloon, glider, motor glider and microlight are owned, operated and/or leased;
 - (B) The type of balloon, glider, motor glider and microlight; and
 - (C) Any additional limitations placed on the certificate that the ECAA considers necessary.
- (5) Termination: Each validation certificate issued under this section terminates:
 - (i) When the type of balloon, glider, motor glider and microlight endorsed on this validation certificate is removed from the operator's operation specification;
 - (ii) When the balloon, glider, motor glider and microlight is removed from the Egyptian registry;
 - (iii) When the permits required by paragraph (d)(2)(ii) of this section expire;
 - (iv) When the foreign license, authorization, or the medical documentation required is suspended, revoked, or no longer valid; or
 - (v) After 6 months the certificate was issued.
- (6) Renewal: The certificate holder may have the certificate renewed once by complying with the requirements of this section at the time of application for renewal and following the procedures for renewal as defined in the appropriate ECAA approved policy and procedures manuals.

62.62 Rendering a licence valid pursuant to a formal agreement between A.R.E and any other state.

- (A) The licenses of other contracting state may be automatically rendered valid if A.R.E and such state have:
 - 1. Adopted common licenses regulations which are compliant with annex 1.
 - 2. Entered into a formal agreement recognizing the automatic validation process.
 - 3. Established a surveillance system to ensure the continuing implementation of the common licensing regulations.
 - 4. Registered the agreement with ICAO pursuant to article 83 of the convention on international civil aviation.
- (B) The endorsement shall appear on license rendered valid pursuant to item (A) indicating that the license is automatically validated under the agreement described in item (A) and referencing the ICAO registration number of the agreement. the endorsement shall further include a list of all states that are party to the agreement.

62.63 Glider towing: Experience and training requirements.

- (a) No person may act as pilot in command of an aircraft used for towing a glider unless that person:
 - (1) Holds at least a private pilot license-airplane;
 - (2) Has logged at least 100 hours as pilot in command in the aircraft type to be used in the glider towing operation;
 - (3) Has completed a competency test certified by an authorized glider flight instructor in both ground and flight training in gliders and is proficient in:
 - (i) The techniques and procedures essential to the safe towing of gliders including all operational limitations;
 - (ii) Emergency and abnormal procedures;
 - (iii) Signals to be used; and
 - (iv) Maximum angles of bank.
 - (4) Has logged at least three flights as the sole manipulator of the controls of an aircraft towing a glider or simulating glider-towing operations while accompanied by a pilot qualified to tow gliders under this Part;
 - (5) Has received certification from the qualified pilot required in paragraph (4) of this section that at least 3 flights have been accomplished either glider towing or simulating glider towing operations; and
 - (6) Within the preceding 12 months has:
 - (i) Made at least three actual or simulated glider towing operations while accompanied by a qualified pilot under this section; or

- (ii) Made at least three flights as pilot in command of a glider towed by an aircraft.
- (b) The qualified pilot required in paragraph (a)(4) of this section, who authorizes a person seeking glider towing privileges under this Part must have:
 - (1) Met the requirements of this section prior to authorizing the person seeking glider towing privileges; and
 - (2) Logged at least 10 flights as pilot in command of an aircraft performing actual glider towing operations.
- (c) When the qualified pilot required in paragraph (a)(4) of this section holds only a private pilot license-airplane, then that pilot must have:
 - (1) Logged at least 100 hours of pilot in command time in an airplane; and
 - (2) Performed at least three flights within the preceding 12 calendar months both as a pilot in command of an airplane towing a glider accompanied by a pilot qualified under this section, and as a pilot in command of a glider being towed by an airplane.

62.65 – 62.69 Reserved .

Subpart B

Student balloon, glider , motor glider and microlight pilots license

62.71 Applicability.

This subpart prescribes the requirements for the issuance of student balloon, glider , motor glider and microlight pilot licenses, the conditions under which those licenses are necessary, and the general operating rules and limitations for the holders of those licenses.

62.73 Eligibility requirements for student balloon, glider , motor glider and microlight pilots.

To be eligible for a student balloon, glider , motor glider and microlight pilot license, an applicant must:

- (a) Be at least 16 years of age .
- (b) Be able to read, speak, write, and understand the English language.

62.75 Application.

An application for a student balloon, glider , motor glider and microlight pilot license is made on a form and in a manner provided by the ECAA and is submitted to:

- (a) A designated aviation medical examiner if applying for an ECAA medical certificate under part 67 of the ECARs;
- (b) An ECAA, Airman Licensing Branch.

62.77 Solo requirements for student pilots.

- (a) General. A student balloon, glider , motor glider and microlight pilot may not operate balloon, glider , motor glider and microlight in solo flight unless that student has met the requirements of this section. The term “solo flight” as used in this subpart means that flight time during which a student pilot is the sole occupant of balloon, glider , motor glider and microlight or that flight time during which the student performs the duties of a pilot in command of balloon, glider , motor glider and microlight.
- (b) Aeronautical knowledge. A student balloon, glider , motor glider and microlight pilot must demonstrate satisfactory aeronautical knowledge on a knowledge test that meets the requirements of this paragraph:
 - (1) The test must address the student pilot's knowledge of:
 - (i) Applicable sections of parts 62 and 91 of the ECARs;
 - (ii) Airspace rules and procedures for the glider , motor glider and microlight airport of operation or the land area of operation where the solo flight will be performed; and
 - (iii) Flight characteristics and operational limitations for the make and model of aircraft to be flown.
 - (2) The student's authorized instructor must:
 - (i) Administer the test; and
 - (ii) At the conclusion of the test, review all incorrect answers with the student before authorizing that student to conduct a solo flight.
- (c) Pre-solo flight training. Prior to conducting a solo flight, a student balloon, glider , motor glider and microlight pilot must have:
 - (1) Received and logged flight training for the maneuvers and procedures of this section that are appropriate to the balloon, glider , motor glider and microlight to be flown; and
 - (2) Demonstrated satisfactory proficiency and safety, as judged by an authorized instructor, on the maneuvers and procedures required by this section in the balloon, glider , motor glider and microlight to be flown.
- (d) Maneuvers and procedures for pre-solo flight training in a glider , motor glider and microlight. A student pilot who is receiving training for a glider rating or privileges must receive and log flight training for the following maneuvers and procedures:
 - (1) Proper flight preparation procedures, including preflight planning, preparation, aircraft systems, and, if appropriate, power plant operations;
 - (2) Taxiing or surface operations, including rumpus, if applicable;
 - (3) Launches, including normal and crosswind;
 - (4) Straight and level flight, and turns in both directions, if applicable;
 - (5) Airport traffic patterns, including entry procedures;
 - (6) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
 - (7) Descents with and without turns using high and low drag configurations;
 - (8) Flight at various airspeeds;

- (9) Emergency procedures and equipment malfunctions;
 - (10) Ground reference maneuvers, if applicable;
 - (11) Inspection of towline rigging and review of signals and release procedures, if applicable;
 - (12) Aero tow, ground tow, or self-launch procedures;
 - (13) Procedures for disassembly and assembly of the glider;
 - (14) Stall entry, stall, and stall recovery;
 - (15) Straight glides, turns, and spirals;
 - (16) Landings, including normal and crosswind;
 - (17) Slips to a landing;
 - (18) Procedures and techniques for thermal flying; and
 - (19) Emergency operations, including towline break procedures.
- (e) Maneuvers and procedures for pre-solo flight training in a balloon. A student balloon pilot who is receiving training in a balloon must receive and log flight training for the following maneuvers and procedures:
- (1) Layout and assembly procedures;
 - (2) Proper flight preparation procedures, including preflight planning and preparation, and aircraft systems;
 - (3) Ascents and descents;
 - (4) Landing and recovery procedures;
 - (5) Emergency procedures and equipment malfunctions;
 - (6) Operation of hot air or gas source, ballast, valves, vents, and rip panels, as appropriate;
 - (7) Use of deflation valves or rip panels for simulating an emergency;
 - (8) The effects of wind on climb and approach angles; and
 - (9) Obstruction detection and avoidance techniques.
- (f) Limitations on flight instructors authorizing solo flight.
- (1) No instructor may authorize a student balloon, glider, motor glider and microlight pilot to perform a solo flight unless that instructor has:
 - (i) Given that student balloon, glider, motor glider and microlight pilot training in the balloon, glider, motor glider and microlight in which the solo flight is to be flown;
 - (ii) Determined the student balloon, glider, motor glider and microlight pilot is proficient in the maneuvers and procedures prescribed in this section;
 - (iii) Determined the student pilot is proficient in the balloon, glider, motor glider and microlight to be flown;
 - (iv) Ensured that the student balloon, glider, motor glider and microlight pilot's license has been endorsed by an instructor authorized to provide flight training for the specific balloon, glider, motor glider and microlight to be flown; and
 - (v) Endorsed the student balloon, glider, motor glider and microlight pilot's logbook for the specific balloon, glider, motor glider and microlight to be flown, and that endorsement remains current for solo flight privileges, provided an authorized instructor updates the student's logbook every 90 days thereafter.
 - (2) The flight training required by this section must be given by an instructor authorized to provide flight training who is appropriately rated and current.

62.79 General limitations.

- (a) A student balloon, glider, motor glider and microlight pilot may not act as pilot in command of balloon, glider, motor glider and microlight:
 - (1) That is carrying a passenger;
 - (2) That is carrying property for compensation or hire;
 - (3) For compensation or hire;
 - (4) In furtherance of a business;
 - (5) On an international flight;
 - (6) With a flight or surface visibility of less than 5 km during daylight hours;
 - (7) When the flight cannot be made with visual reference to the surface; or
 - (8) In a manner contrary to any limitations placed in the pilot's logbook by an authorized instructor.
- (b) A student balloon, glider, motor glider and microlight pilot may not act as a required balloon, glider, motor glider and microlight pilot and no person other than a required pilot is carried on the balloon, glider, motor glider and microlight.

62.81 Solo cross-country flight requirements.

(a) General.

- (1) Except as provided in paragraph (b) of this section , a student balloon, glider , motor glider and microlight pilot must meet the requirements of this section before:
 - (i) Conducting a solo cross-country flight, or any flight greater than 10 nautical miles from the location from where the balloon flight originated.
 - (ii) Conducting a solo cross-country flight, or any flight greater than 50 nautical miles from the location from where the glider , motor glider and microlight flight originated.
 - (iii) Making a solo flight and landing at any location other than the location of origination.
 - (2) Except as provided in paragraph (b) of this section , a student balloon, glider , motor glider and microlight pilot who seeks solo cross-country flight privileges must:
 - (i) Have received flight training from an instructor authorized to provide flight training on the maneuvers and procedures of this section that are appropriate to the balloon, glider , motor glider and microlight for which solo cross-country privileges are sought;
 - (ii) Have demonstrated cross-country proficiency on the appropriate maneuvers and procedures of this section to an authorized instructor;
 - (iii) Have satisfactorily accomplished the pre-solo flight maneuvers and procedures required by this part in balloon, glider , motor glider and microlight for which solo cross-country privileges are sought; and
 - (iv) Comply with any limitations included in the authorized instructor's endorsement that are required by paragraph (c) of this section .
 - (3) A student balloon, glider , motor glider and microlight pilot who seeks solo cross-country flight privileges must have received ground and flight training from an authorized instructor on the cross-country maneuvers and procedures listed in this section that are appropriate to the aircraft to be flown.
- (b) Authorization to perform certain solo flights and cross-country flights. A student balloon, glider , motor glider and microlight pilot must obtain an endorsement from an authorized instructor to make solo flights from the location where the student pilot normally receives training to another location. A student pilot who receives this endorsement must comply with the requirements of this paragraph.
- (c) Endorsements for solo cross-country flights : a student balloon, glider , motor glider and microlight pilot must have the endorsements prescribed in this paragraph for each cross-country flight:
- (1) Student balloon, glider , motor glider and microlight pilot license endorsement. A student balloon, glider , motor glider and microlight pilot must have a solo cross-country endorsement from the authorized instructor who conducted the training, and that endorsement must be placed on that person's student pilot license for the specific category of aircraft to be flown.
 - (2) Logbook endorsement.
 - (i) A student balloon, glider , motor glider and microlight pilot must have a solo cross-country endorsement from an authorized instructor that is placed in the student pilot's logbook for the specific balloon, glider , motor glider and microlight to be flown.
 - (ii) For each cross-country flight, the authorized instructor who reviews the cross-country planning must make an endorsement in the person's logbook after reviewing that person's cross-country planning, as specified in paragraph (d) of this section . The endorsement must—
 - (A) Specify the make and model of aircraft to be flown;
 - (B) State that the student's preflight planning and preparation is correct and that the student is prepared to make the flight safely under the known conditions; and
 - (C) State that any limitations required by the student's authorized instructor are met.
- (d) Limitations on authorized instructors to permit solo cross-country flights. An authorized instructor may not permit a student balloon, glider , motor glider and microlight pilot to conduct a solo cross-country flight unless that instructor has:
- (1) Determined that the student's cross-country planning is correct for the flight;
 - (2) Reviewed the current and forecast weather conditions and has determined that the flight can be completed under VFR;

- (3) Determined that the student is proficient to conduct the flight safely;
 - (4) Determined that the student has the appropriate solo cross-country endorsement for the balloon, glider, motor glider and microlight to be flown; and
 - (5) Determined that the student's solo flight endorsement is current for the make and model aircraft to be flown.
- (e) Maneuvers and procedures for cross-country flight training in a glider, motor glider and microlight. A student glider, motor glider and microlight pilot who is receiving training for cross-country flight in a glider must receive and log flight training in the following maneuvers and procedures:
- (1) Use of aeronautical charts for VFR navigation using pilot age and dead reckoning with the aid of a magnetic compass;
 - (2) Use of aircraft performance charts pertaining to cross-country flight;
 - (3) Procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight;
 - (4) Emergency procedures;
 - (5) Traffic pattern procedures that include area departure, area arrival, entry into the traffic pattern, and approach;
 - (6) Procedures and operating practices for collision avoidance, wake turbulence precautions, and windshear avoidance;
 - (7) Recognition, avoidance, and operational restrictions of hazardous terrain features in the geographical area where the cross-country flight will be flown;
 - (8) Procedures for operating the instruments and equipment installed in the aircraft to be flown, including recognition and use of the proper operational procedures and indications;
 - (9) Landings accomplished without the use of the altimeter from at least 2,000 feet above the surface; and
 - (10) Recognition of weather and upper air conditions favorable for cross-country soaring, ascending and descending flight, and altitude control.

62.83 Operations in Class B airspace and at airports located within Class B airspace.

- (a) A student balloon, glider, motor glider and microlight pilot may not operate an aircraft on a solo flight in Class B airspace unless:
- (1) The student pilot has received both ground and flight training from an authorized instructor on that Class B airspace area, and the flight training was received in the specific Class B airspace area for which solo flight is authorized;
 - (2) The logbook of that student pilot has been endorsed by the authorized instructor who gave the student pilot flight training, and the endorsement is dated within the 90-day period preceding the date of the flight in that Class B airspace area; and
 - (3) The logbook endorsement specifies that the student pilot has received the required ground and flight training, and has been found proficient to conduct solo flight in that specific Class B airspace area.
- (b) A student balloon, glider, motor glider and microlight pilot may not operate an aircraft on a solo flight to, from, or at an airport located within Class B airspace pursuant to section 91.131(b) of the ECARs unless:
- (1) The student balloon, glider, motor glider and microlight pilot has received both ground and flight training from an instructor authorized to provide training to operate at that airport, and the flight and ground training has been received at the specific airport for which the solo flight is authorized;
 - (2) The logbook of that student balloon, glider, motor glider and microlight pilot has been endorsed by an authorized instructor who gave the student balloon, glider, motor glider and microlight pilot flight training, and the endorsement is dated within the 90-day period preceding the date of the flight at that airport; and
 - (3) The logbook endorsement specifies that the student balloon, glider, motor glider and microlight pilot has received the required ground and flight training, and has been found proficient to conduct solo flight operations at that specific airport.

62.85. Military Microlight pilots or former Military Microlight pilots: Special rules.

- (a) General. Except for a rated Military Microlight pilot or former rated Military Microlight pilot who has been removed from flying status for lack of proficiency, or because of disciplinary action involving aircraft operations, a Military Microlight pilot or former rated Military Microlight pilot who meets the applicable requirements of this section may apply, on the basis of his or her military training, for:
 - (1) A Private / commercial microlight pilot license;
 - (2) An aircraft rating in the category and class of aircraft for which that military Microlight pilot is qualified;
 - (3) A type rating, if Applicable .
- (b) Military Microlight pilots on active flying status within the past 12 months. A Military Microlight pilot or former rated Military Microlight pilot who has been on active flying status within the 12 months before applying must:
 - (1) Pass a knowledge test on the appropriate parts of the ECARs that apply to pilot privileges and limitations, air traffic and general operating rules, and accident reporting rules;
 - (2) Present documentation showing compliance with the requirements of paragraph (d) of this section for at least one aircraft category rating; and
 - (3) Present documentation showing that the applicant is or was, at any time during the 12 calendar months before the month of application:
 - (i) A rated Military Microlight pilot on active flying status in an armed force of the Arab Republic of Egypt; or
 - (ii) A rated military microlight pilot of an armed force of a foreign contracting State to the Convention on International Civil Aviation, assigned to pilot duties (other than flight training) with an armed force of the Arab Republic of Egypt and holds, at the time of application, a current civil pilot license issued by that contracting State authorizing at least the privileges of the pilot license sought.
- (c) Military Microlight pilots not on active flying status during the 12 calendar months before the month of application. A Military Microlight pilot or former rated Military Microlight pilot who has not been on active flying status within the 12 calendar months before the month of application must:
 - (1) Pass the appropriate knowledge and practical tests prescribed in this part for the license or rating sought; and
 - (2) Present documentation showing that the applicant was, before the beginning of the 12th calendar month before the month of application, a rated Military Microlight pilot as prescribed by paragraph (b)(3)(i) or paragraph (b)(3)(ii) of this section.
- (d) Aircraft category, class, and type ratings. A Military Microlight pilot or former rated Military Microlight pilot who applies for an aircraft category, class, or type rating, if applicable, is issued that rating at the commercial pilot license level if the pilot presents documentary evidence that shows satisfactory accomplishment of:
 - (1) An official A.R.E. Military Microlight pilot check in that aircraft category, class, or type, if applicable, as pilot in command during the 12 calendar months before the month of application;
 - (2) At least 10 hours of pilot-in-command time in that aircraft category, class, or type, if applicable, during the 12 calendar months before the month of application; or
 - (3) An ECAA practical test in that aircraft after:
 - (i) Meeting the requirements of paragraphs (b)(1) and (b)(2) of this section; and
 - (ii) Having received an endorsement from an authorized instructor who certifies that the pilot is proficient to take the required practical test, and that endorsement is made within the 60-day period preceding the date of the practical test.
- (e) Aircraft type rating. An aircraft type rating is issued only for aircraft types that the ECAA has certificated for civil operations.
- (f) Evidentiary documents. The following documents are satisfactory evidence for the purposes indicated:
 - (1) An official identification card issued to the pilot by an armed force may be used to demonstrate membership in the armed forces.
 - (2) An original or a copy of a certificate of discharge or release may be used to demonstrate discharge or release from an armed force or former membership in an armed force.
 - (3) Current or previous status as a rated Military Microlight pilot with an A.R.E. Armed Force may be demonstrated by:

- (i) An official A.R.E. Armed Force order to flight status as a Military Microlight pilot;
 - (ii) An official A.R.E. Armed Force form or logbook showing Military Microlight pilot status; or
 - (iii) An official order showing that the rated Military Microlight pilot graduated from an A.R.E. Military Microlight training Unit and received a rating as a Military Microlight pilot.
- (4) A certified A.R.E. Armed Force logbook or an appropriate official A.R.E. Armed Force form or summary may be used to demonstrate flight time in military aircraft as a member of a A.R.E. Armed Force.
- (5) An official A.R.E. Armed Force record of a military checkout as pilot in command may be used to demonstrate pilot in command status.

62.86 to 62.109 reserved

Subpart C
Private Free Balloon Pilot License

62.111 Private free balloon pilot license

Requirements for the issue of the private pilot free balloon pilot license:

- (a) Age: The applicant shall be not less than 16 years of age;
- (b) Medical Fitness: The applicant shall hold a current class (2) medical assessment
- (c) Knowledge: The applicant shall have demonstrated a level of knowledge in at least the following subjects:
 - (1) Air law; rules and regulations relevant to the holder of a free balloon pilot license; rules of the air; appropriate air traffic services practices and procedures;
 - (2) Free Balloon general knowledge;
 - (i) Principles of operation of free balloon systems and instrument;
 - (ii) Operating limitations of free balloons; relevant operational information from the flight manual or other appropriate document;
 - (iii) physical properties and practical application of gases used in free balloons;
 - (3) Flight performance and planning;
 - (i) Effects of loading on flight characteristics; mass calculations;
 - (ii) Use and practical application of launching, landing and other performance data, including the effect of temperature;
 - (iii) Per-flight and en-route flight planning appropriate to operation under VFR; appropriate air traffic services procedures; altimeter setting procedures; operations in areas of high-density traffic;
 - (4) Human performance and limitation; human performance relevant to the free balloon pilot;
 - (5) Meteorology; application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry;
 - (6) Navigation; practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;
 - (7) Operational procedures;
 - (i) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
 - (ii) Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards;
 - (8) Principle of flight; and principles of flight relating to free balloons
 - (9) Radiotelephone.
- (d) Experience: The applicant shall have completed not less than:
 - (1) 16 hours of flight time as a pilot of balloon including;
 - (2) At least 8 launches and ascents of which one must be solo;
 - (3) The applicant shall have gained under appropriate supervision operational experience in at least the following areas:
 - (i) Preflight operations, including balloon assembly, rigging, inflation, mooring and inspection;
 - (ii) Techniques and procedure for launching and ascent;
 - (iii) Collision avoidance precautions;
 - (iv) Control of a free balloon by external visual reference;
 - (v) Recognition of and recovery from rapid descents;
 - (vi) Cross-country flying using visual reference and dead-reckoning;
 - (vii) Approaches and landings, including ground handling; and
 - (viii) Emergency procedures.
- (e) Skill: The applicant shall have demonstrated the ability to perform as a pilot-in command of a free balloon, the procedures, and maneuvers described in this section and to demonstrate the following;
 - (1) Operate the free balloon within its limitation;
 - (2) Complete all maneuvers with smoothness and accuracy;
 - (3) Exercise good judgment and airmanship;
 - (4) Apply aeronautical knowledge; and
 - (5) Maintain control of the free balloon at all times in a manner such that the successful outcome of a procedure or maneuver is never seriously in doubt.
- (f) Privileges of the holder of the private pilot free balloon license: Shall act as pilot-in-command of any free balloon provided that the license holder has operational experience in a hot air or gas balloon.

(g) Requirements for license renewal: Prior to renewing the applicants license, he must complete the following:

- (1) Possess a current class 2 medical assessment;
 - (2) Complete successfully a proficiency flight check conducted by an Examiner authorized by ECAA.
 - (3) Must have completed a minimum of 3 Free Balloon flights within the preceding 90 days.
- (h) Non Egyptian Private Free Balloon Pilot's License Holders and Instructor Pilot's Rating:
- (1) Any credits or exception against requirements contained in this part for holders of a non Egyptian Private Free Balloon Pilot's License and Instructor Rating are not allowed by the ECAA.
 - (2) Foreign pilot's approval to fly on Egyptian registered Free Balloons: The ECAA will approve foreign pilot licenses after the pilot fulfills the requirements contained in ECAR 62.59 of this part .

Subpart D
Commercial free balloon pilot license

62.113 Commercial free balloon pilot license

Requirements for the issuance of the license:

- (a) Age: The applicant shall not be less than 18 years of age;
- (b) Medical Fitness: The applicant shall hold a current class (2) medical assessment; and
- (c) Aeronautical knowledge:
 - (1) A person who applies for a commercial free balloon pilot license are required to pass ground examination in Aeronautical knowledge areas as follow:
 - (i) Air law;
 - (ii) Balloon general knowledge;
 - (iii) Flight performance and planning;
 - (iv) Human performance and limitations;
 - (v) Meteorology;
 - (vi) Navigation;
 - (vii) Operational procedures; and
 - (viii) Principles of flight.
 - (ix) The applicant should have demonstrated a level of knowledge appropriate to the privileges to be granted to the holder of Commercial free balloon pilot licence, in radiotelephony procedures and phraseology as appropriate to VFR operations and on action to be taken in case of communication failure.
- (2) The syllabus for the examination is given in appendix (A) of this part.
- (3) Written examinations for the Commercial pilot balloon (Balloon) are conducted by the ECAA at the examination center.

(d) Experience Requirements:

- (1) An applicant for a Commercial Free Balloon Pilot License must have completed at least 35 hours flight time as pilot of balloons including the requirements of i & ii below.
 - (i) 15 hours of instruction in flying as pilot of balloons, including 4 free flights, one of which must be an ascent to at least 3000 ft above the elevation of the place of departure or at least the maximum authorized altitude accepted by responsible Air Traffic Control Unit;
 - (ii) 20 hours as pilot in command, including 16 free flights .
- (2) An applicant holding commercial pilot license Aeroplane wishes to exercise commercial free Balloon privileges must have completed at least 16 hours flight time as a pilot of balloons including the requirements of i & ii below:
 - (i) 10 hours of instruction in flying as pilot of balloons including 3 free flights one of which must be as ascent to at least 3000 ft above the elevation of the place of departure or at least the maximum authorized altitude accepted by responsible Air Traffic Control Unit;
 - (ii) 6 hours as a pilot in command, including at least 4 free flights.

NOTES:-

- 1. The applicant will be required to obtain a Private Free Balloon Pilot licence before completing the pilot in command requirement.
- 2. A free flight means a flight in a free balloon of at least 30 minutes.
- 3. The instructional hours at (d) (1) (i) must be to a syllabus recognised by the ECAA and conducted by a balloon instructor approved by the ECAA.

(e) Skills Requirements :

- (1) The applicant shall have gained, under appropriate supervision, operational experience in free balloons in at least the following areas:
 - (i) Preflight operations, including balloon assembly, rigging, inflation, mooring and inspection;
 - (ii) Techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;
 - (iii) Collision avoidance precautions;
 - (iv) Control of a free balloon by external visual reference;
 - (v) Recognition of, and recovery from, rapid descents;
 - (vi) Cross country flying using visual reference and dead reckoning;
 - (vii) Approaches and landings, including ground handling; and
 - (viii) Emergency procedures.

- (2) The applicant shall have demonstrated the ability to perform as pilot-in-command of a free balloon, the procedures, and maneuvers as described in (3) of this section, with a degree of competency appropriate to the privileges granted to the holder of a commercial free balloon pilot license, and to:
- Operate the free balloon within its limitations;
 - Complete all maneuvers with smoothness and accuracy;
 - Exercise good judgement and airmanship;
 - Apply aeronautical knowledge; and
 - Maintain control of the free balloon at all times in a manner such that the successful outcome of the procedure or maneuver is never seriously in doubt.
- (3) The applicants for a Commercial Free Balloon Pilot License or a commercial pilot Aeroplane with Balloon rating will be required to pass a General Flight check (GFC), conducted by an examiner authorized by the ECAA, in the first type of balloon to be included in the Free Balloon Rating of the license.
- (4) The details of the General Flight check are given in appendix (B) of this part.
- (f) Requirements for the commercial free balloon type rating
- (1) Free Balloon Ratings are issued in the Free Balloon category, and are related to the class and size of the balloon in which the Pilot wishes to exercise the license privileges. Class is specified by reference to lifting agency. There are 4 such classes, each being further divided into 4 Groups based upon envelope capacity, as follows:
- Balloon Classes:
 - Class 1- Hot air
 - Class 2- Gas filled
 - Class 3- Pressurized
 - Class 4- Combination gas and hot air
 - Balloon Groups : (Ref. Appendix C of this part).

Group A:

Initial issue of Commercial free balloon Pilot License or a commercial pilot Aeroplane with a Balloon Rating limited to balloons of an envelope volume not exceeding 3400 cubic meters (120.069 cubic feet).

Group B:

Balloons of an envelope volume exceeding 3400 cubic meters (120.069 cubic feet) but not exceeding 9000 cubic meters (316,800 cubic feet).

Applicants should have flown 50 hours as pilot in command in balloons after the date of Commercial free balloon Pilot License or a commercial pilot Aeroplane with a Balloon Rating issue including the following requirement on group size by a qualified ECAA Examiner and inspector :

 - 5 hours flight training,
 - proficiency flight check,
 - 15 hours Initial Operating Experience (IOE).

Group C:

Balloons of an envelope volume exceeding 9000 cubic meters (316,800 cubic feet) but not exceeding 12000 cubic meters (422,400 cubic feet)

Applicants should have flown 170 hours as pilot in command in balloons after the date of Commercial free balloon Pilot License or a commercial pilot Aeroplane with a Balloon Rating issue including the following requirement on group size by a qualified ECAA Examiner and inspector :

 - 10 hours flight training,
 - proficiency flight check,
 - 10 hours Initial Operating Experience (IOE).

Group D:

Balloons of an envelope volume greater than 12000 cubic meters (422,400 cubic feet)

Applicants should have flown 300 hours as pilot in command in balloons after the date of Commercial free balloon Pilot License or a commercial pilot Aeroplane with a Balloon Rating issue including the following requirement on group size by a qualified ECAA Examiner and inspector :

 - 10 hours flight training,
 - proficiency flight check,
 - 20 hours Initial Operating Experience (IOE).

A license holder with a valid Free Balloon Rating for a Class and Group of balloon may fly any balloon within the same Class and Group.

- (g) Proficiency Flight checks
- (1) Periodic Free Balloon Rating Proficiency Flight checks are conducted by qualified Examiner authorized by ECAA.
 - (2) The check requires that the applicant demonstrates to the examiner his competence in carrying out normal and emergency maneuvers and drills appropriate to the Free Balloon type in question, Provided that it is satisfactory, and that the other licensing requirements have been met, the ECAA will issue the license with the appropriate class and group entered in the Free Balloon Rating.
 - (3) Additional Class/Group of balloon will be included in the Free Balloon Rating following a successful flight check and Free Balloon Type examination in a balloon representative of the Class/Group, conducted by an examiner authorized for this purpose by the ECAA.
 - (4) Periodic Free Balloon rating flight check is valid for a period of 6 months.
 - (5) The check must have been carried out in a balloon of the Class and Group in which the flight is to be conducted, except that a check in a Group B balloon will also be valid for Group A balloons of the same Class, or a check in a Group C Free Balloon will also be valid for Group A and Group B Free Balloons of the same Class. or a check in a Group D Free Balloon will also be valid for Group A, B and Group C Free Balloons of the same Class. The individual type used for the check must be within a Class and Group included in the Free Balloon Rating. In addition, the pilot is required to have carried out in the 90 days preceding the flight not less than 3 free flights, each of at least 30 minutes duration, for any purpose, as PIC of a Free Balloon in a free balloon.
- (h) Requirements for license renewal: Prior to renewing the applicants license, he must complete the following:
- (1) Possess a current class 2 medical assessment;
 - (2) Complete successfully a proficiency flight check conducted by an Examiner authorized by ECAA.
 - (3) Must have completed a minimum of 3 Free Balloon flights within the preceding 90 days.
- (i) Re-qualification for applicants whose license has expired for a period of 2 years or more must comply with the following:
- (1) Must have a current class 2 medical assessment;
 - (2) Pass a theoretical written examination on the subjects included in item (c) of this section administered by an ECAA inspector;
 - (3) Applicant must completing 3 or more flights under the supervision of an approved Free Balloon flight instructor; and
 - (4) Applicant must complete successfully a flight check administered by an Examiner authorized by ECAA.
- (j) Privileges of the holder of the Commercial free balloon Pilot License or a commercial pilot Aeroplane with a Balloon Rating:
- (1) The holder of a Commercial free balloon Pilot License or a commercial pilot Aeroplane with a Balloon Rating shall be entitled to exercise the privileges of the ECAA Private Pilot's Licence (Free Balloons).
 - (2) Subject to paragraph (3), he shall be entitled to fly, when the Free Balloon is flying for any purpose whatsoever, as pilot in command of any type of Free Balloon specified in the Free Balloon rating included in the licence.
 - (3) He shall not act as pilot in command on a flight for the purpose of carriage of passengers on a flight in respect of which the holder of the licence receives a remuneration unless he has within the immediately preceding 90 days carried out as pilot in command in a free balloon at least 3 flights each of not less than 30 minutes duration.
- (k) Non Egyptian Commercial free balloon Pilot License or a commercial pilot Aeroplane with a Balloon Rating Holders and Instructor Pilot's Rating:
- (1) Any credits or exception against requirements contained in this part for holders of a non Egyptian Commercial free balloon Pilot License or a commercial pilot Aeroplane with a Balloon Rating and Instructor Rating are not allowed by the ECAA.
 - (2) Foreign pilot's approval to fly on Egyptian registered Free Balloons: The ECAA will approve foreign pilot licenses after the pilot fulfills the requirements given in ECAR 62.59 of this part .

Subpart E
Private Glider Pilot License

62.121 Requirements for issuance of the private glider* pilot license

(a) General requirements:

- (1) Age: The applicant must be at least 17 years of age.
- (2) Medical Fitness: The applicant must hold a current Class 2 medical assessment valid for 24 months for a glider and 12 months for a motor glider.
- (3) Knowledge: The applicant must demonstrate a appropriate level of knowledge in at least the following subjects:
 - (i) Air law and rules of the air applicable to glider* pilot privileges, limitations and flight operations;
 - (ii) Glider* navigation, including the use of aeronautical charts and the magnetic compass applicable to glider* pilot operations;
 - (iii) The recognition of weather situations, avoiding hazardous weather and wake turbulence and the procurement and use of aeronautical weather reports and forecasts applicable to glider* pilot operations;
 - (iv) The safe and efficient operation of gliders, including ground (auto or winch) and/or tow procedures and appropriate signals and safety precautions for gliders;
 - (v) Emergency procedures and equipment malfunctions pertaining to gliders*;
 - (vi) The operating limitations of gliders*, and the principles of operation of glider* systems/instruments and understanding the principles of flight relating to gliders*;
 - (vii) The use of aeronautical documentation such as AIP, NOTAMS, aeronautical codes and abbreviations; and
 - (viii) Results of the testing of the above mentioned areas of knowledge must be provided to the ECAA.

(b) Experience:

- (1) The applicant shall have completed not less than 20 hours of flight time in gliders, including at least 10 hours of solo flight time in gliders during which the following must be satisfactorily performed:
 - (i) 2 hours of dual flight with instruction in stall awareness, spin entry, spins, and spin recovery techniques for gliders;
 - (ii) 40 solo launchings and landings must have been performed; and
 - (iii) 2 solo glider flights of not less than 30 minutes duration for each flight.
- (2) For motor glider aircraft the applicant shall have completed not less than 50 hours of flight time in a motor glider including at least 25 hours of solo flight time during which the following must be satisfactorily performed:
 - (i) 3 cross country flights, each of which shall be at least 81NM(150 KM) from the point of departure and include:
 - (A) Cross country flight in which no landing is made en-route;
 - (B) Cross country flight in which a landing at 2 different points shall be made; and
 - (C) Cross country flight to be flown in a triangular flight pattern.
 - (ii) At least 10 landing flights in a motor glider with engine power;
 - (iii) At least 10 landing flights in a motor glider without engine power;
 - (iv) At least 2 hours flight time in a motor glider performing climbs to a higher altitude performed by means of ascending winds without engine power; and
 - (v) Instructions in stall awareness, spin entry, spins, and spin recovery techniques for motor gliders.
- (3) For gliders* the applicant shall have gained, under appropriate supervision, operation experience in gliders*, in at least the following areas:
 - (i) Pre-flight operations, including glider* assembly/disassembly and inspection;
 - (ii) Techniques and procedures for launching method used, including appropriate airspeed limitations, emergency procedures and signals used;
 - (iii) Traffic pattern operations, collision avoidance precautions and procedures;
 - (iv) Control of the glider* by external visual reference;
 - (v) Flight throughout the flight envelope;
 - (vi) Recognition of, and recovery from, incipient and full stalls and spiral dives;
 - (vii) Normal and cross-wind launches, approaches and landings; and
 - (viii) Emergency procedures.

- (c) Flight Instruction: The applicant must have gained, under appropriate supervision, operational experience in gliders in the following areas:
- (1) Pre-flight operations including assembly and inspection;
 - (2) Techniques and procedures for launching;
 - (3) Control of the glider by external reference;
 - (4) Flight throughout the flight performance envelope;
 - (5) Recognition and recovery from stalls and spiral dives;
 - (6) Normal and cross-wind launches, approaches and landings;
 - (7) Cross-country flying using visual references; and
 - (8) Emergency procedures.
- (d) Skill: The applicant shall have demonstrated the ability to perform as pilot-in-command of a glider*, the following procedures and maneuvers with a degree of competency appropriate to the privileges granted to the holder of a private glider* pilot license:
- (1) Operation of the glider* within its limitations;
 - (1) Complete all maneuvers with smoothness and accuracy;
 - (2) Exercise good judgment and airmanship;
 - (3) Apply aeronautical knowledge applicable to gliders*;
 - (4) Maintain control of the glider* at all times in a manner such that the successful outcome of a procedure or maneuver is never seriously in doubt;
 - (5) Accuracy approaches and landings, with the nose of the glider coming to rest short of and within 100 feet of a line or mark on the ground;
 - (6) Glider launches by ground (auto and winch) or by air tows (the applicants license will be limited to the type of tow demonstrated); and
 - (7) Precision maneuvering, including straight glides, turns to headings, steep turns and spirals in both directions and the correct use of the gliders* performance speeds, flight at slow airspeeds with realistic distractions, and the recognition of and recovery from stalls entered from straight and level flight and turns.
 - (9) The applicant must demonstrate the ability to perform as pilot-in-command of a glider, the procedures and maneuvers in item (4) of this section with a degree of competency appropriate for the privileges for the license and to:
 - (i) Operate within the gliders limitations;
 - (ii) Complete all maneuvers with smoothness and accuracy;
 - (iii) Exercise good judgment and airmanship;
 - (iv) Apply aeronautical knowledge; and
 - (v) Maintain control of the glider at all times.
- (e) Privileges: The holder of a private glider* license shall have the right to perform the following:
- (1) Solo flights;
 - (2) Cross country flights; and
 - (3) Carrying passengers as pilot-in-command (not for compensation or hire).

62.115-62.119 Reserved

SUBPART F

Commercial motor glider pilot license

62.121 Commercial motor glider pilot license

Requirements for the issuance of the license:

- (a) Age: The applicant shall not be less than 18 years of age.
- (b) Medical Fitness: The applicant shall hold a current class (2) medical assessment.
- (c) Aeronautical Knowledge: The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a motor glider pilot licence, in at least the following subjects:
 - (1) General: A person who applies for a Commercial motor Glider Pilot License must receive and log ground training from an authorized instructor supervised by the ECAA on the aeronautical knowledge areas of this section.
 - (2) Aeronautical knowledge areas.
 - (i) Air law :rules and regulations relevant to the holder of a motor glider pilot licence; rules of the air; appropriate air traffic services practices and procedures
 - (ii) Aircraft general knowledge :
 - (A) Principles of operation of a motor glider systems and instruments;
 - (B) Operating limitations of a motor gliders; relevant operational information from the flight manual or other appropriate document;
 - (iii) Flight performance and planning :
 - (A) Effects of loading and mass distribution on flight characteristics; mass and balance considerations;
 - (B) pre-flight and en-route flight planning appropriate to operations under VFR; appropriate air traffic services procedures; altimeter setting procedures; operations in areas of high-density traffic;
 - (iv) Human performance :human performance relevant to the motor glider pilot;
 - (v) Meteorology: application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry;
 - (vi) Navigation : practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;
 - (vii) Operational procedures :
 - (A) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
 - (B) Different take-off and landing methods and associated procedures;
 - (C) Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather and wake turbulence and other operating hazards;
 - (viii) Principles of flight : principles of flight relating to a motor gliders
 - (ix) The applicant should have demonstrated a level of knowledge appropriate to the privileges to be granted to the holder of a motor glider pilot licence, in radiotelephony procedures and phraseology as appropriate to VFR operations and on action to be taken in case of communication failure.
- (d) Experience Requirements:
 - (1) The applicant must log at least 100 hours of flight time as a pilot in a motor glider and that flight time must include 100 flights in a motor glider as pilot in command including at least:
 - (i) 5 hours of flight training in a motor glider or 15 training flights in a motor glider with an authorized instructor on the areas of operation listed in this section, including at least 3 training flights in a motor glider with an authorized instructor in preparation for the practical test within the 60 day period preceding the test; and
 - (ii) 10 hours of solo flights that include not less than 20 solo flights in a motor glider on the areas of operation listed in this section, or;
 - (2) 200 hours of flight time as a pilot in heavier than air aircraft and 25 hours of flight time as a pilot in a motor glider and that flight time must include at least 20 flights in a motor glider as a pilot in command including at least:
 - (i) 10 hours of flight training in a motor glider or 20 training flights in a motor glider with an authorized instructor on the areas of operation listed in this section including at least 3 training flights in a motor glider with an authorized instructor in preparation for the practical test within the 60 days preceding the date of the test; and
 - (ii) 10 solo flights in a motor glider on the areas of operation listed in this section.
 - (3) The applicant shall have gained, under appropriate supervision, operational experience in a motor gliders in at least the following areas:

- (i) Preflight operations, and procedures;
 - (ii) Performance and maneuvers;
 - (iii) Airport and a motor glider port operations;
 - (iv) Launches and landings;
 - (v) Soaring techniques;
 - (vi) Slow flight and stalls;
 - (vii) Navigation;
 - (viii) Emergency procedures; and
 - (ix) Post flight procedures.
- (e) Skills: The applicant shall have demonstrated the ability to perform as pilot-in-command of a motor glider the procedures, and maneuvers as described in this section, with a degree of competency appropriate to the privileges granted to the holder of a commercial a motor glider pilot license, and to:
- (1) Operate the motor glider within its limitations;
 - (2) Complete all maneuvers with smoothness and accuracy;
 - (3) Exercise good judgement and airmanship;
 - (4) Apply aeronautical knowledge; and
 - (5) Maintain control of the motor glider at all times in a manner such that the successful outcome of the procedure or maneuver is never seriously in doubt.
- (f) Requirements for license renewal: Prior to renewing the applicants license, he must complete the following:
- (1) Possess a current class 2 medical assessment;
 - (2) Complete successfully a proficiency flight check on a motor glider conducted by either a check airman or an ECAA inspector; and
 - (3) Must have completed a minimum of 3 motor glider flights within the preceding 90 days.
 - (4) the licence holder should have completed not less than 10 hours of flight time as a pilot of motor gliders within the preceding 12 month.
- (g) Re-qualification for applicants whose license has expired for a period of 2 years or more must comply with the following:
- (1) Must have a current class 2 medical assessment;
 - (2) Pass a theoretical written examination on the subjects included in this section administered by an ECAA inspector;
 - (3) Applicant must obtain proficiency by completing 3 or more flights under the supervision of an approved a motor glider flight instructor; and
 - (4) Applicant must complete successfully a proficiency check administered by a check airman or an ECAA inspector.
- (h) Privileges: The holder of a private motor glider license shall have the right to perform the following:
- (1) Solo flights;
 - (2) Cross country flights; and
 - (3) Carrying passengers as pilot-in-command (for compensation ohire).

62.122 -62.149 Reserved

Subpart G

Microlight Private Pilot License

62.151 Requirements for issuance of the Microlight private pilot license

(a) General requirements:

- (4) Age: The applicant must be at least 16 years of age.
- (5) Medical Fitness: The applicant must hold a current Class 2 medical assessment.
- (6) Knowledge: The applicant must demonstrate a appropriate level of knowledge in at least the following subjects:
 - (iii) Air law and rules of the air applicable to Microlight pilot privileges, limitations and flight operations;
 - (iv) Microlight navigation, including the use of aeronautical charts and the magnetic compass applicable to Microlight pilot operations;
 - (ix) The recognition of weather situations, avoiding hazardous weather and wake turbulence and the procurement and use of aeronautical weather reports and forecasts applicable to Microlight pilot operations;
 - (x) The safe and efficient operation of Microlight , including ground and appropriate signals and safety precautions for Microlight;
 - (xi) Emergency procedures and equipment malfunctions pertaining to Microlight
 - (xii) The operating limitations of Microlight, and the principles of operation of Microlight systems/instruments and understanding the principles of flight relating to Microlight;
 - (xiii) The use of aeronautical documentation such as AIP, NOTAMS, aeronautical codes and abbreviations; and
 - (xiv) Results of the testing of the above mentioned areas of knowledge must be provided to the ECAA.

(b) Experience:

For Microlight aircraft the applicant shall have completed not less than 25 hours of flight time in a Microlight including at least 10 hours of solo flight time during which the following must be satisfactorily performed:

- (vi) 1 Navigation flights, each of which shall be at least 100 KM total flight route:
 - (A) Navigation flight in which no landing is made en-route;
- (vii) At least 10 landing flights in a Microlight with engine power;
- (viii) At least 10 landing flights in a Microlight without engine power;
- (ix) At least 2 hours flight time in a Microlight performing climbs to a higher altitude performed with engine power.
- (x) Instructions in stall awareness, spin entry, spins, and spin recovery techniques for Microlight.

©Flight Instruction:

For Microlight the applicant shall have gained, under appropriate supervision, operation experience in Microlight, in at least the following areas:

- (ix) Pre-flight operations, including Microlight Component parts, controls and systems of the aircraft Techniques and Preparation for flight and actions after flight, Effects of controls, Taxiing including appropriate airspeed limitations, emergency procedures and signals used;
- (x) Straight and level flight , Basic climbing and descending , Performance climbing and descending , Turning flight ,Climbing and descending turns
- (xi) Traffic pattern operations, collision avoidance precautions and procedures;
- (xii) Critically slow airspeed , Stalling, and spin avoidance and Spinning ;
- (xiii) Circuit training , Advanced take-off and landing techniques Normal and cross-wind takeoff , approaches and landings; and Advanced turning , Unusual attitudes
- (xiv) Emergency procedures including Forced landings , Precautionary landings , Operation at minimum level , Action in the event of an engine/cockpit fire and Systems failure.
- (xv) Solo circuit, local area orientation and general handling consolidation

- (xvi) En-route navigation, departure and arrival procedures , Navigation at minimum level and/or in deteriorating conditions , Unsure of position and lost procedures

(d) Skill:

The applicant shall have demonstrated the ability to perform as pilot-in-command of a Microlight, the following procedures and maneuvers with a degree of competency appropriate to the privileges granted to the holder of a private Microlight pilot license:

- (1) Operation of the Microlight within its limitations;
- (2) Complete all maneuvers with smoothness and accuracy;
- (3) Exercise good judgment and airmanship;
- (4) Apply aeronautical knowledge applicable to Microlight;
- (5) Maintain control of the Microlight at all times in a manner such that the successful outcome of a procedure or maneuver is never seriously in doubt;
- (6) Accuracy approaches and landings, with the nose of the Microlight coming to rest short of and within 100 feet of a line or mark on the ground;
- (7) Microlight flight the applicants license will be limited to the operational limitations of the MPPL ; and
- (8) Precision maneuvering, including straight Microlight, turns to headings, steep turns and spirals in both directions and the correct use of the Microlight performance speeds, flight at slow airspeeds with realistic distractions, and the recognition of and recovery from stalls entered from straight and level flight and turns.

(e) Requirements for license renewal: Prior to renewing the applicants license, he must complete the following:

- (1) Possess a current class 2 medical assessment;
- (2) Complete successfully a proficiency flight check on a Microlight conducted by either a check airman or an ECAA inspector; and
- (3) Must have completed a minimum of 3 Microlight flights within the preceding 90 days.
- (4) the licence holder should have completed not less than 10 hours of flight time as a pilot of Microlight within the preceding 12 month.

(f) Re-qualification for applicants whose license has expired for a period of 2 years or more must comply with the following;

- (1) Must have a current class 2 medical assessment;
- (2) Pass a theoretical written examination on the subjects included in this section administered by an ECAA inspector;
- (3) Applicant must obtain proficiency by completing 3 or more flights under the supervision of an approved a Microlight flight instructor; and
- (4) Applicant must complete successfully a proficiency check administered by a check airman or an ECAA inspector.

(g) Privileges:

The holder of a private Microlight license shall have the right to perform the following:

- (1) Solo flights;
- (2) Navigation flights;

Subpart H

Microlight Commercial pilot license

62.153 Microlight Commercial pilot license

Requirements for the issuance of the license:

- (a) Age: The applicant shall not be less than 18 years of age.
- (b) Medical Fitness: The applicant shall hold a current class (2) medical assessment.
- (c) Aeronautical Knowledge:

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a Microlight pilot licence, receive and log ground training from an authorized instructor supervised by the ECAA on the aeronautical knowledge areas in at least the following subjects:

- (1) Air law :rules and regulations relevant to the holder of a Microlight pilot licence; rules of the air; appropriate air traffic services practices and procedures
- (2) Aircraft general knowledge :
 - (i) Principles of operation of a Microlight systems and instruments;
 - (ii) Operating limitations of a Microlight; relevant operational information from the flight manual or other appropriate document;
- (3) Flight performance and planning :
 - (i) pre-flight and en-route flight planning appropriate to operations under VFR; appropriate air traffic services procedures; altimeter setting procedures; operations in areas of high-density traffic;
- (4) Human performance :human performance relevant to the Microlight pilot;
- (5) Meteorology: application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry;
- (6) Navigation :practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

(7) Operational procedures :

- (i) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
- (ii) Different take-off and landing methods and associated procedures;
- (iii) Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather and wake turbulence and other operating hazards;
- (8) Principles of flight : principles of flight relating to a Microlight
- (9) The applicant should have demonstrated a level of knowledge appropriate to the privileges to be granted to the holder of a Microlight pilot licence, in radiotelephony procedures and phraseology as appropriate to VFR operations and on action to be taken in case of communication failure.

(d) Experience Requirements:

- (1) The applicant must log at least 50 hours of flight time as a pilot in a Microlight and that flight time must include 30 flights in a Microlight as pilot in command including at least:
 - (i) 5 hours of flight training in a Microlight or 15 training flights in a Microlight with an authorized instructor on the areas of operation listed in this section, including at least 3 training flights in a Microlight with an authorized instructor in preparation for the practical test within the 60 day period preceding the test; and
 - (ii) 20 hours of solo flights that include not less than 20 solo flights in a Microlight on the areas of operation listed in this section, or;
- (2) 25 hours of flight time as a pilot in a Microlight and that flight time must include at least 50 flights in a Microlight as a pilot in command including at least:
 - (i) 10 hours of flight training in a Microlight or 20 training flights in a Microlight with an authorized instructor on the areas of operation listed in this section including at least 3

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- training flights in a Microlight with an authorized instructor in preparation for the practical test within the 60 days preceding the date of the test; and
- (ii) 15 solo flights in a Microlight on the areas of operation listed in this section.
- (3) The applicant shall have gained, under appropriate supervision, operational experience in a Microlight in at least the following areas:
- (i) Preflight operations, and procedures;
 - (ii) Performance and maneuvers;
 - (iii) Airport and a Microlight port operations;
 - (iv) Takeoffs and landings;
 - (v) Soaring techniques;
 - (vi) Slow flight and stalls;
 - (vii) Navigation;
 - (viii) Emergency procedures; and
 - (ix) Post flight procedures.
- (e) Skills: The applicant shall have demonstrated the ability to perform as pilot-in-command of a Microlight the procedures, and maneuvers as described in this section, with a degree of competency appropriate to the privileges granted to the holder of a commercial a Microlight pilot license, and to:
- (1) Operate the Microlight within its limitations;
 - (2) Complete all maneuvers with smoothness and accuracy;
 - (3) Exercise good judgement and airmanship;
 - (4) Apply aeronautical knowledge; and
 - (5) Maintain control of the Microlight at all times in a manner such that the successful outcome of the procedure or maneuver is never seriously in doubt.
- (f) Requirements for license renewal: Prior to renewing the applicants license, he must complete the following:
- (1) Possess a current class 2 medical assessment;
 - (2) Complete successfully a proficiency flight check on a Microlight conducted by either a check airman or an ECAA inspector; and
 - (3) Must have completed a minimum of 3 Microlight flights within the preceding 90 days.
 - (4) the licence holder should have completed not less than 10 hours of flight time as a pilot of Microlight within the preceding 12 month.
- (g) Re-qualification for applicants whose license has expired for a period of 2 years or more must comply with the following:
- (1) Must have a current class 2 medical assessment;
 - (2) Pass a theoretical written examination on the subjects included in this section administered by an ECAA inspector;
 - (3) Applicant must obtain proficiency by completing 3 or more flights under the supervision of an approved a Microlight flight instructor; and
 - (4) Applicant must complete successfully a proficiency check administered by a check airman or an ECAA inspector.
- (h) Privileges: The holder of a private Microlight license shall have the right to perform the following:
- (3) Solo flights;
 - (4) Cross country flights; and
 - (5) Carrying passengers as pilot-in-command (for compensation or hire).

SUBPART I**Balloon, glider , motor glider and microlight Flight Instructor Ratings****62.155 APPLICABILITY**

This section prescribes the requirements for the issuance, privileges and renewal of a free balloon flight instructor rating.

62.157 Requirements for the issuance of a free balloon flight instructor rating

- (a) Age: The applicant must be at least 21 years of age.
- (b) Knowledge:
 - (1) The applicant shall hold a commercial free balloon license;
 - (2) The applicant, after attending an approved free balloon flight instructor training course, shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a free balloon flight instructor rating in, at least, the following areas:
 - (i) Techniques of applied instruction;
 - (ii) Assessment of student performance in those subjects in which instruction is given;
 - (iii) The learning process;
 - (iv) Elements of effective teaching;
 - (v) Student evaluation, testing and training philosophies;
 - (vi) Training program development;
 - (vii) Lesson planning;
 - (viii) Classroom instructional techniques;
 - (ix) Use of training aids;
 - (x) Analysis and correction of student errors;
 - (xi) Human performance and limitations relevant to flight instruction; and
 - (xii) Hazards involved in simulating malfunctions in free balloons.
 - (3) The results of the tests in the above listed areas of knowledge must be provided to the ECAA.
- (c) Experience: The applicant must complete in a free balloon, at least, the following accumulated flying hours before authorization as a Free Balloon Instructor:
 - (1) For Balloon group (A) and (B) :-
 - (i) An applicant holding a commercial free balloon pilot license should have flown 200 hours as a pilot in command in a free balloon.
 - (ii) An applicant holding a commercial pilot license on an aeroplane with a balloon rating and having previous instructor flight time an aeroplane should have flown 100 hours as pilot in command in free balloon.
 - (2) For Balloon group (C) :- applicant should have flown 350 hours as a pilot in command in a free balloon.
 - (3) For Balloon group (D) :- applicant should have flown 400 hours as a pilot in command in a free balloon.

Note :

- 1. A license holder with a valid Balloon Instructor Rating for a Class and Group of balloon may instruct in any balloon within the same Class and Group.
 - 2. A license holder with a valid Balloon Instructor Rating for Group B balloon will also be valid for instruction on Group A balloons of the same Class.
 - 3. A license holder with a valid Balloon Instructor Rating for Group C balloon will also be valid for instruction on Group A and Group B balloons of the same Class.
 - 4. A license holder with a valid Balloon Instructor Rating for Group D balloon will also be valid for instruction on Group A, B and C balloons of the same Class.
 - 5. The individual Balloon type used for the instruction must be within a Class and Group included in the Balloon Rating.
 - 6. Instructor having previous instructor flight time experience on aero plane can be credit toward issuance of free balloon instructor rating following careful study case by case by licensing authority.
- (4) At least 6 flights of at least 30 minutes duration each, with dual instruction.
- (d) Flight instruction: The applicant must, under the supervision of an approved free balloon flight instructor:
 - (1) Have received instruction in balloon flight instructional techniques, including demonstration in and recognition of common student errors;

- (2) Have practiced instructional techniques in those flight maneuvers and procedures in which the applicant intends to instruct.
- (e) Skill: The applicant shall have demonstrated the ability to instruct in a free balloon all procedures and maneuvers that the applicant intends to instruct, including pre-flight, post flight and ground instruction as appropriate.
- (f) Privileges:
 - (1) To supervise solo flights by free balloon student pilots;
 - (2) To provide flight instruction for the issuance of a free balloon private license, a free balloon commercial license or a free balloon instructor rating, provided the free balloon instructor has:
 - (i) The free balloon flight instructor privileges are endorsed on his license;
 - (ii) Holds at least the license and rating for which instruction is being given; and
 - (iii) Holds the license and rating necessary to act a pilot in command of the balloon.

62.159 Requirements for renewal of the free balloon flight instructor license

- (a) The rating will be valid for 12 months as a maximum and not be valid after the expiration date of the license on which it is endorsed.
- (b) The applicant shall complete two training flights or two proficiency checks within the last 12 months before applying for renewal.
- (c) The applicant shall have demonstrated to an examiner the ability to instruct in a free balloon all procedures and maneuvers that the applicant qualified to instruct, including pre-flight, post flight and ground instruction as appropriate.
- (d) If a period of more than two years has passed after the expiration date of the free balloon instructor rating, the applicant shall provide proof that he has successfully completed an instructor examination administered by an approved free balloon flight instructor. The applicant will be required to complete four instructional flights with a licensed free balloon flight instructor. He may be permitted to fly as a free balloon flight instructor under training provided the applicant's license and medical assessment are valid.

62.161 Requirements for renewal of the Microlight flight instructor rating

- (a) The rating will be valid for 24 months as a maximum and not be valid after the expiration date of the license on which it is endorsed.
- (b) The applicant shall complete 10 Microlight flight training hours within the last 12 months before applying for renewal:
 - (1) If the Microlight flight instructor rating has expired and the applicant could not renew it in accordance with the requirements in (a) and (b) of this section, provided the expiration is not more than two years, the renewal applicant may be permitted to train for four hours under the supervision of an approved Microlight flight instructor provided the applicant holds a valid license and completes the required hours for renewal; and
 - (2) If a period of more than two years has passed after the expiration date of the Microlight flight instructor rating, the applicant shall provide proof that he has successfully completed an instructor examination administered by an approved Microlight flight Examiner. The applicant will be required to complete 10 instructional flight hours as an instructor under training with a licensed Microlight flight instructor. He may be permitted to fly as a Microlight flight instructor under training provided the applicant's license and medical assessment are valid.

62.163 Requirements for issuance of a Glider* flight instructor rating

- (a) Age: The applicant must be at least 21 years of age.
- (b) Knowledge:
 - (1) The applicant shall hold at least a valid private glider* license;
 - (2) The applicant after completing an approved glider* flight instructor training course shall demonstrate a level of knowledge appropriate to the privileges granted to the holder of a glider* flight instructor rating in the following areas:
 - (i) Techniques of applied instruction;
 - (ii) Assessment of student performance in the subjects in which instruction is given;
 - (iii) The learning process;
 - (iv) Elements of effective teaching;
 - (v) Student evaluation, testing and training philosophies;
 - (vi) Training program development;
 - (vii) Lesson planning;

- (viii) Classroom instructional techniques;
 - (ix) Use of training aids;
 - (x) Analysis and correction of student errors;
 - (xi) Human performance and limitations relevant to flight instruction;
 - (xii) Hazards involved in simulating system failures and malfunctions in gliders*; and
 - (xiii) The result of the tests in the above listed areas of knowledge must be provided to the ECAA.
- (c) Experience:
- (1) The applicant shall have logged at least 250 hours of solo flight time in gliders, or 125 hours solo flight time in a heavier than air aircraft;
 - (2) The applicant shall have logged 24 flights or 3 hours of dual instructional flight time in a glider equipped with dual flight controls under the supervision of an approved glider instructor;
 - (3) The applicant shall have at least 10 hours of instrument flight experience, and instruction in recovery from incipient and full stalls and spiral dives; and
 - (4) For motor gliders:
 - (i) The applicant shall have completed not less than 100 hours solo flight time in a motor glider, or 50 hours solo flight time in a motor glider and 50 hours flight time in a glider; and
 - (ii) Six hours of dual instructional flight time in a motor glider aircraft equipped with dual flight controls under the supervision of an approved glider* flight instructor.
- (d) Flight instruction: The applicant shall, under the supervision of an approved glider* flight instructor:
- (1) Have received instruction in glider* flight instructional techniques including the demonstration of how to recognize and correct common student errors; and
 - (2) Have practiced instructional techniques in those glider* flight maneuvers and procedures in which the applicant intends to provide glider* instruction.
- (e) Skill: The applicant shall have demonstrated in a glider* aircraft for which the glider* flight instructor privileges are sought, the ability to instruct in those areas in which glider* instruction is to be given, including pre-flight, post flight and ground instruction as appropriate.
- (f) Privileges for the holder of the glider* flight instructor rating:
- (1) To supervise solo flights by glider* student pilots;
 - (2) To carry out flight instruction for the issuance of a private glider* pilot license, or a glider* flight instructor rating, provided the glider* flight instructor has:
 - (i) The glider* flight instructor privileges granted on his license;
 - (ii) Holds at least the license and ratings for which instruction is being given in the appropriate glider* aircraft; and
 - (iii) Holds the license and rating necessary to act as the pilot in command of the glider* aircraft on which the instruction is being given.

62.165 Requirements for renewal of the glider* flight instructor rating

- (a) The rating will be valid for 24 months as a maximum and not be valid after the expiration date of the license on which it is endorsed.
- (b) The applicant shall complete 10 glider and/or 10 motor glider flight training hours within the last 12 months before applying for renewal:
 - (1) If the glider* flight instructor rating has expired and the applicant could not renew it in accordance with the requirements in (a) and (b) of this section, provided the expiration is not more than two years, the renewal applicant may be permitted to train for four hours under the supervision of an approved glider* flight instructor provided the applicant holds a valid license and completes the required hours for renewal; and
 - (2) If a period of more than two years has passed after the expiration date of the glider* flight instructor rating, the applicant shall provide proof that he has successfully completed an instructor examination administered by an approved glider* flight instructor. The applicant will be required to complete 10 instructional flight hours as an instructor under training with a licensed glider* flight instructor. He may be permitted to fly as a glider flight instructor under training provided the applicant's license and medical assessment are valid.

62.167 Microlight * ground and flight instructor rating

Applicability: This section prescribes the requirements for the issuance, privileges and renewal of a Microlight instructor rating.

62.169 Requirements for issuance of a Microlight instructor rating

General Requirments

- (a) Age: The applicant must be at least 21 years of age.
- (b) Knowledge:
 - (1) The applicant shall hold at least a valid MCPL license;
 - (2) The applicant after completing an approved Micrlight flight instructor training course shall demonstrate a level of knowledge appropriate to the privileges granted to the holder of a Microlight instructor rating in the following areas:
 - (i) Techniques of applied instruction;
 - (ii) Assessment of student performance in the subjects in which instruction is given;
 - (iii) The learning process;
 - (iv) Elements of effective teaching;
 - (v) Student evaluation, testing and training philosophies;
 - (vi) Training program development;
 - (vii) Lesson planning;
 - (viii) Classroom instructional techniques;
 - (ix) Use of training aids;
 - (x) Analysis and correction of student errors;
 - (xi) Human performance and limitations relevant to flight instruction;
 - (xii) Hazards involved in simulating system failures and malfunctions in Microlight; and
 - (xiii) The minimum training requirement comprises of not less than 40hrs ground school conducted by an Approved microlight instructor at an approved Training Organization.
 - (xv) On completion of training the Candidate must pass an Rating Flight Test and Ground Examination conducted by an FIE.
 - (xvi) The result of the tests in the above listed areas of knowledge must be provided to the ECAA.

Ground Instructor requirments

b) Experience:

- 1) Must hold a license that includes a valid Microlight rating. The microlight rating must be "MCPL".
- 2) Must have held a valid MCPL Microlights rating for a minimum period of one year before starting the (GI) course.
- 3) Must have 100hrs as pilot in command (PIC).
- 4) Must pass a pre-entry written examination and a flight test conducted by a Microlight Flying Instructor Examiner (FIE) or Flying Instructor Course instructor (FIC) in the 6 months immediately preceding the course commencement date.

- b) Skill: The applicant shall have demonstrated in a Microlight for which the Microlight ground instructor privileges are sought, the ability to instruct in those areas in which Microlight instruction is to be given, including pre-flight, post flight and ground instruction as appropriate.

Privileges for the holder of the Microlight Ground instructor rating:

- (1) To Conduct Ground Training for student pilots;
- (2) To carry out Ground instruction for the issuance of a MPPL , MCPL license, or a Microlight Ground instructor rating, provided the Microlight Ground instructor has:
 - (i) The Microlight ground instructor privileges granted by ECAA ;

- (ii) Holds at least the license and ratings for which instruction is being given in the appropriate Microlight ; and
- (iii) Holds the license and rating necessary to act as the pilot in command of the Microlight on which the instruction is being given.

62.171 Requirements for renewal of the Microlight ground instructor rating

- (a) The rating will be valid for 24 months as a maximum and not be valid after the expiration date of the license on which it is endorsed.
- (b) The applicant shall complete 4 Microlight ground training course within the last 12 months before applying for renewal:
- (c) If the Microlight ground instructor rating has expired and the applicant could not renew it in accordance with the requirements in (a) and (b) of this section, the renewal applicant may be permitted to train for 1 course under the supervision of an approved Microlight Ground instructor provided the applicant holds a valid license and completes the required Courses for renewal;

Flight Instructor requirements

- a) Experience:
 - 1) Must have not less than 200 hrs experience as PIC on Microlights
 - 2) Must have held an (GI) Rating for at least one year and have a minimum of 100 hrs experience as (GI) on microlights.
 - 3) Must have passed a Flight Test and Ground Exam conducted by an FIE.
 - 4) Must have an FE recommendation on the Test.
- (d) Flight instruction : The applicant shall of flight training , under the supervision of an approved Microlight instructor:
 - (1) Have received instruction 15 hrs in Microlight flight instructional techniques including the demonstration of how to recognize and correct common student errors; and
 - (2) Have practiced instructional techniques in those Microlights flight maneuvers and procedures in which the applicant intends to provide Microlight instruction.

Skills:

- 1) The applicant shall have demonstrated in a Microlight for which the Microlight Flight instructor privileges are sought, the ability to instruct in those areas in which Microlight instruction is to be given, including pre-flight, flight , post flight and ground instruction as appropriate.

Privileges for the holder of the Microlight flight instructor rating:

- (1) To supervise solo flights by Microlight student pilots;
- (2) To carry out ground / flight instruction for the issuance of a MPPL , MCPL , or a Microlight flight instructor rating, provided the Microlight flight instructor has:
 - (i) The Microlight flight instructor privileges granted on his license;
 - (ii) Holds at least a valid license and ratings for which instruction is being given in the appropriate Microlight aircraft; and
 - (iii) Holds the license and rating necessary to act as the pilot in command of the Microlight on which the instruction is being given.

APPENDIX A
Ground Examination Syllabus
For

Commercial Free Balloon Pilot's License(TOTAL 100 HR.)

1 Aviation Law, Flight Rules And Procedures

1.1.4 Air Traffic Rules and Services

Definitions. Visual flight rules, instrument flight rules and general air traffic control procedures. Types of airspace and air traffic service units. Separation standards. Carriage of radio equipment and communication failure procedures. 'Airport' reporting procedures. Altimeter setting procedures. Use of radar in air traffic services. Control areas. Advisory airspace. Flight information service. Airspace restrictions. Signals for aerodrome traffic.

1.1.5 Search and Rescue

Responsible authority. Communications. Distress frequencies. Aircraft not equipped with radio. Procedure for pilot-in-command requiring SAR escort facilities. Procedure for pilot-in-command observing an accident or intercepting a distress call (or message) and for guiding surface craft to the scene of a ditching. Flight in areas where search and rescue operations are in progress. Action by survivors. Ground/air visual signal code for use by survivors.

General Flight Rules

Visual Flight Rules

Instrument Flight Rules

Aerodrome Traffic Rules

Aerodrome signals and markings:

aural and visual signals (excluding dimensions), distress, urgency and safety signals

2 NAVIGATION

special rules airspace and prohibited, danger and restricted areas.

2.2 Instruments

2.2.1 The principles of operation and the errors of the pressure altimeter; the meaning and uses of QNH, QFE, standard pressure setting, altitude, transition altitude, transition level, elevation, height, pressure altitude.

2.2.2 The principles of operation and the errors of the magnetic compass.

2.2.3 The principles of operation of the vertical speed indicator.

2.3 Practical navigation

2.3.1 Track (true, magnetic, compass), wind velocity, groundspeed/distance/time/gas consumption calculations.

2.3.2 Conversion of units: nautical miles, statute miles, feet, inches, kilometers, meters, centimeters.

2.3.3 Determination of distance by scale calculation.**2.3.4 Given the relevant flight information and charts, predict a probable flight path with elapsed times/ETAs for prominent points, and****extract significant features from the charts including topographical and aeronautical data.****2.3.5 Given the relevant information, determine position by the use of topographical pinpoints and bearings, including simple VOR bearings.****3 METEOROLOGY****3.1 Properties of the atmosphere****3.1.1 Temperature: radiation, conduction and convection; variation of temperature near the earth's surface; variation of temperature with height; lapse rates, temperature inversions, troposphere, tropopause.****3.1.2 Pressure: definition; variation horizontally and vertically.****3.1.3 Air density: variation at surface and with height.****3.1.4 Humidity: dew point; latent heat and change of state; evaporation, condensation, sublimation.****3.1.5 Relationship between density, pressure, temperature and humidity; the International Standard Atmosphere.****3.2 Wind****3.2.1 Relationship between wind and isobars; geotropic wind, gradient wind.****3.2.2 Variation of wind with height; elementary knowledge of thermal winds.****3.2.3 Local variation of wind with topography; diurnal; anabatic and katabolic effects, Fohn effect; land and sea breezes.****3.2.4 Airflow over mountains; standing waves.****3.2.5 Gusts, squalls, turbulence; low-level wind shear.****3.3 Clouds and precipitation****3.3.1 Stability and instability in the atmosphere.****3.3.2 Types of cloud; methods of formation; height of base and vertical extent.****3.3.3 Turbulence cloud; or graphic cloud; convection cloud.****3.3.4 Thunderstorms.****3.3.5 Precipitation associated with different types of cloud: drizzle, rain, snow, hail.****3.3.6 Operating hazards associated with various types of cloud and precipitation.****3.4 Visibility****3.4.1 Fog, mist, haze and their differences.****3.4.2 Formation of radiation fog and advection fog, diurnal and seasonal variation.****3.4.3 Vertical and oblique visibility; runway visual range.****3.5 Ice Accretion****3.5.1 Flight procedure in icing conditions.****3.6 Air masses and fronts****3.6.1 Classification and characteristics of air masses.****3.6.2 Characteristics of warm and cold fronts and occlusions.****3.6.3 Depressions, anticyclones, cols: associated weather.****3.7 The Weather Map****3.7.1 Interpretation of symbols and figures used on weather charts.****3.7.2 The development and movement of simple pressure systems and fronts.****3.7.3 Elementary forecasting.****3.8 Observations****3.8.1 Knowledge of standard methods of measuring pressure, temperature, humidity, cloud height, visibility, surface wind, upper wind.****3.9 Sources of meteorological information and its presentation****3.9.1 Weather call and special arrangements for balloon operators.****3.9.2 Vomit.****3.9.3 Decoding of TAF and METAR.**

3.9.4 Comprehension and interpretation of flight forecast documents (significant weather and low level wind charts in particular).

4 AIRCRAFT (GENERAL) (BALLOONS)

4.1 This written examination is based on the knowledge areas specified in this section.

4.2 Systems

4.2.1 Fuel systems and burners :

- (a) Main components, the purpose of each component and the safety features of the system;
- (b) The principles of operation of the system;
- (c) The care and maintenance of the system;
- (d) Burner rating;
- (e) The symptoms of fuel exhaustion and the use of an emergency (or back-up) system, if fitted;
- (f) Icing;
- (g) Leaks;
- (h) Cylinder position.

4.2.2 Propane:

- (a) Properties
 - (1) Specific gravity in liquid gaseous form;
 - (2) Effect of altitude on burner pressure;
 - (3) Effect of temperature on tank pressure and burner pressure;
- (b) Fuel quantity measurement with reference to a percentage fuel gauge;
- (c) The reasons for, and the method of, heating tanks;
- (d) The precautions to be observed.
 - (1) for the prevention of fire;
 - (2) during refueling;
- (e) The action required in the event of a propane fire.

4.2.3 Deflation

- (a) The operation of the deflation system, the function of the main components.
- (b) Main advantages and disadvantages of the system.
- (c) Safety checks.
- (d) Routine checks and limitations.

4.2.4 Equipment and instruments – altimeter, vertical speed indicator (vario), thermostat,

Their construction, principles of operation, limitations, presentation, adjustments and serviceability checks.

4.3 Balloon performance

4.3.1 Factors that may affect fuel consumption, burner output (pressure and ambient temperature). Use of nitrogen pressure systems.

4.3.2 Knowledge of the terms: equilibrium, inertia, momentum, false lift, terminal velocity, curl over, lift, weighing off.

4.3.3 Operational limitations, loading and limitations and the reasons for imposing those limits (to include normal and maximum rates of climb and descent, envelope temperature maximum and continuous).

4.3.4 The factors to be considered in preparation for, and the execution of:

- (a) High wind landing;
- (b) High vertical speed landing;
- (c) Landing in thermic conditions;
- (d) Landing in gusty/turbulent conditions;
- (e) Tethering for display purposes;
- (f) Tethering for passenger rides;
- (g) Take-off in varying conditions.

4.3.5 Factors that may affect performance: altitude, wind, terrain.**4.4 Balloon maintenance: qualifications, C of A requirements, routine maintenance, minor repairs, inspection schedules, fabric overheating, deflation system, fire extinguisher.****4.5 Flight characteristics.****4.6 Accidents and incidents.****4.7 Documents.****4.8 Aero medical.****4.8.1 Basic knowledge of first aid and use of generally available kits.****4.8.2 Physiological factors: the senses, spatial disorientation and sensory illusions.****4.8.3 Effects of colds, alcohol and drugs.****4.8.4 Recognition of the effects of hypoxia and carbon monoxide, and knowledge of their dangers.****5 AIRCRAFT (TYPE) (BALLOONS)****5.1 This is an examination, conducted by an ECAA authorized examiner and confined to the type of balloon upon which the candidate is being flight-tested.****5.2 Flight Manual**

- (a) Emergency procedure: fire on the ground and in the air.
- (b) In-flight system failures.
- (c) Limitations.
- (d) Use of the load system specified in the Flight Manual, and determination of the maximum payload for a given pressure height and outside air temperature.

5.3 Balloon systems specific to type used during flight test.**6 Human Performance And Limitations Syllabus (Balloons)****6.1 This syllabus is divided into four main topic areas:**

- (a) Basic Aviation Physiology and Health Maintenance.
- (b) Basic Aviation Psychology.
- (c) Stress, Fatigue and their Management.
- (d) Social Psychology.

6.2 Basic Aviation Physiology and Health Maintenance**6.2.1 Basic Physiology and the Effects of Flight Anatomy and physiology of the eye, ear, vestibular, circulatory and respiratory systems.**

Composition of the atmosphere, gas laws and the nature of the human requirement for oxygen.
Effects of reduced ambient pressure. Recognizing and coping with hypoxia and hyperventilation.
Entrapped gases and barotraumas.
Motion sickness. Diving and flying.

6.2.2 Flying and Health

Noise and age-induced hearing loss.
Visual defects and their correction.
Arterial disease and coronary risk factors,
ECG, blood pressure, stroke.
Diet, exercise, obesity.
Fits, faints and the EEG.
Psychiatric diseases; drug dependence and alcoholism.
Common ailments and fitness to fly;
gastro-enteritis, colds, use of common drugs
and their side effects.

6.3 Basic Aviation Psychology

Basic plan of human information processing, including the concepts of sensation, attention, memory, central decision-making and the creation of mental models.
Limitation of central decision channel and mental workload.
Function of attention in selecting information sources, attention getting stimuli. Effects of experience and expectation on perception.
Erroneous mental models; visual, vestibular and other illusions.

Use of visual cues in landing.
Eye movements, visual search techniques, mid-air collisions.
Skill-, rule- and knowledge-based behavior.
The nature of skill acquisition, the exercise of skill, conscious and automatic behavior errors of skill.
Rule-based behavior, procedures, failures of rule-based behavior.
Knowledge-based behavior, problem solving and decision-making, inference formation, failures in knowledge-based behavior.
Maintaining accurate mental models, situational awareness, confirmation bias.

6.4 Stress and Stress Management

6.4.1 Models and Effects of Stress

Definitions, concepts and models of stress.
Arousal; concepts of over- and under-arousal.
Environmental stresses and their effects; heat, noise.
Domestic stress, home relationships, bereavement, financial and time commitments.
Work stress, relationship with colleagues.
Effects of stress on attention, motivation and performance.
Life stress and health, other clinical effects of stress.
Defense mechanisms, identifying stress and stress management.

6.4.2 Sleep and Fatigue

Work-induced fatigue.
Shift work.
Roistering problems, sleep management and naps.
Sleep hygiene.

6.5 Social Psychology

6.5.1 Individual Differences, Social Psychology and Interaction with Others

Individual differences, definitions of intelligence and personality.
Assessing personality.
Main dimensions of personality: extroversion and anxiety. Other important traits; warmth and sociability, impulsivity, tough-mindedness, dominance, stability and boldness.
Goal-directed, person-directed types of behavior.
Individual personality related problems of flying, especially risk-taking.
Communication, verbal and non-verbal communication, one and two-way communication, different communication styles.
Interacting with crew, air traffic services, ground handling personnel and passengers.

6.5.2 Judgment

Making decisions.
Assessing risk.

Appendix (B)
Ecaa Free Balloon Commercial Pilot License
General Flight Check (Gfc)

1 Syllabus And Conditions For The Check For Balloons

This appendix sets out the content of the General Flight Check (Day) (GFC) for the grant of the Commercial Pilot's License (Balloons) (CPL(B)), the flight check pass conditions, the validity period of a successful flight check results and the flight check arrangements.

2 General Flight Check Content

2.1 The content of the GFT has been expanded in detail to give applicants guidance as to the skills and knowledge they will be expected to demonstrate during the check.

2.2 In addition to the specific items detailed, applicants will be required to demonstrate their knowledge for balloon flight.

3 Flight Check Pass Conditions

3.1 A fail in any one section of Sections 1, 2, and 3 will require a re-check of that section except that in all re-checks Section 1 will be re-assessed whether or not it was a re-check item. Also, in the event of a failure in Section 2 or Section 3 then both sections will require a re-check of all three sections.

3.2 A failure to obtain a pass in all three sections within a series of 3 attempts will invalidate that series and all three sections will have to be taken at the next attempt as for the initial check.

4 General Flight Check Results Period Of Validity

A pass in all three sections of the GFT within a series must be obtained within the 6 months immediately preceding the date of receipt by ECAA of the license application.

5 Flight Check Arrangements

The flight check will be conducted by a Flight Examiner authorized by the ECAA .

6 General Flying Check**6.1 Section 1****1.0 Pre-flight****1.1 Preparation for flight****1.2 Pre-inflation****1.3 Inflation****6.2 Section 2 tethered flight if applicable****6.3 Section 3****General Handling****3.1 Take off****3.2 Level Flight****3.3 Climb****3.4 Descent****3.5 Approaches****3.6 Emergencies****3.7 Landing****3.8 Action after flight****3.9 Fuel Management****3.10 ATC liaison****6.3 Section 4****4.0 Navigation****4.1 Weather assessment****4.2 Use of maps, charts etc****4.3 ATC Liaison****4.4 Position Fixing****4.5 Fuel Planning****4.6 Airmanship****7 Expanded Syllabus****7.1 Section 1 – Pre-Flight****7.1.1 Preparation For Flight**

(a) Documentation

-
- (1) Balloon logbook
 - (2) C of A
 - (3) C of R
 - (4) C of M Review
 - (5) Medical Certificate
 - (6) Crew License (where applicable)
 - (7) Radio License (where applicable)
 - (8) Balloon Flight Manual
 - (9) Load Sheet
 - (b) Weather
 - (1) Weather Limitations
 - (2) Meteorological actual and forecast conditions for proposed flight
 - (3) Weather Suitability
 - (c) Selection of Launch Site
 - (1) Hazards to inflation
 - (2) Field conditions
 - (3) Downwind obstructions
 - (d) Equipment Check
 - (1) Maps, charts
 - (2) Pencil, scale, etc
 - (3) Timepiece
 - (4) Means to assess track angles
 - (5) Gloves
 - (6) Sources of Ignition (Matches, Striker .. etc)
 - (e) Load Calculations
 - (1) Load calculations as specified in Balloon Flight Manual
 - (2) Load Sheet
 - (f) Flight Planning
 - (1) Pre-Flight Planning and Map Preparation
 - (2) Airspace information (Danger, Prohibited, Restricted areas, ATZ, SRZ etc.)
 - (3) Endurance
 - (4) Altimeter settings (Actual and Forecast QNH)
 - (5) ATS frequencies (where applicable)
 - (6) Retrieve information
 - (7) Fuel Calculations

7.1.2 Pre-Inflation

- (a) Layout Considerations
 - (1) Position of balloon
 - (2) Position of vehicle
 - (3) Launch Tether
- (b) Basket Preparation & Inspection
 - (1) Assembly of burner frame, basket wires, fuel hoses and karabiners
 - (2) Assembly of burner frame support rods and covers (where fitted)
 - (3) Location and securing of fuel cylinders
- (c) Burner Preparation & Inspection
 - (1) Inspection and connection of vapor and liquid hoses
 - (2) Leak Check
 - (3) Operation of pilot light and valves
 - (4) Operation of main burner and valves
- (d) Envelope Preparation & Inspection
 - (1) Connection of flying wires to burner frame
 - (2) Attachment of Quick Release/ Restraint (where fitted)
 - (3) Layout
- (e) Equipment Preparation, Inspection and Checks
 - (1) Altimeter
 - (2) Variometer, thermostat (if fitted)
 - (3) Radio (if fitted)
 - (4) Navigation equipment stowed
 - (5) Handling line stowed
 - (6) Fire Extinguisher
- (f) Crew & Passenger Briefing

- (1) Commander's supervision and direction of crew and passengers
- (g) Airmanship
- 7.1.3 Inflation
 - (a) Operation of Fan
 - (1) Position of fan
 - (2) Precautions
 - (b) Operation of Burner
 - (1) Control
 - (2) Safety precautions
 - (c) Pre-take off Checks
 - (1) In accordance with Flight Manual
 - (d) Airmanship
 - (e) Emergencies
 - (1) Action in event of fire
 - (2) Action in event of equipment failure
 - (3) Action in event of gusting conditions

7.2 Section 2 – tethered flight – if applicable

7.3 Section 3 – General Handling

7.3.1 Take-off

- (1) Obtaining equilibrium
- (2) Operation of quick release (where fitted)
- (3) Awareness of false lift
- (4) Awareness of downwind obstructions
- (5) Establish climb rate to clear downwind obstructions
- (6) Climb to achieve level flight

7.3.2 Level flight

- (1) Maintain level flight for a minimum of 5 minutes to within ± 50 ft of required altitude

7.3.3 Climb and transition to level flight

- (1) Maintain steady rate of climb to a briefed height (minimum height of 500 ft agl ROC not to exceed Flight Manual limits)
- (2) Round out for level flight

7.3.4 Descent and transition to level flight

- (1) Achieve a steady rate of descent to a new briefed minimum height of 500 ft agl (ROD not to exceed Flight Manual Limits)
- (2) Round out for level flight

7.3.5 Approach and overshoot

- (1) Airspace considerations
- (2) Site selection and assessment of wind
- (3) Pre-landing checks
- (4) Use of controls
- (5) Airmanship
- (a) High level
 - (1) An approach to land procedure starting at a minimum height of 1000 ft agl
 - (2) Stabilized descent at 400 fpm ± 100 fpm to a point from which a landing could be made
 - (3) Round out at 75 ft agl ± 25 ft
 - (4) Initiate and establish a normal climb
- (b) Low level
 - (1) An approach to land procedure starting at a maximum height of 500 ft agl
 - (2) Stabilized descent at a ROD not exceeding 200 fpm to a point from which a landing could be made
 - (3) Round out at 50 ft agl ± 25 ft
 - (4) Initiate and establish a normal climb

7.3.6 Emergencies

- (1) Envelope overheat
- (2) Fire in the Air
- (3) Contact with power lines
- (4) Contact with obstacles
- (5) Loss of main burner
- (6) Loss of pilot light
- (7) Emergency Landing

- (8) Parachute/Velcro Malfunction
- (9) Approach with simulated failure of one burner

7.3.7 Landing

- (1) Site selection
- (2) Pre-landing checks – in accordance with Flight Manual
- (3) Passenger briefing
- (4) Use of controls to achieve desired ROD(touchdown final velocity not to exceed 50 feet per minute)
- (5) Deflation
- (6) Burner shutdown
- (7) Passenger transfer (where applicable)

7.3.8 Action after flight

- (1) Safety actions
- (2) Passenger off-load
- (3) Re-seal Velcro (if appropriate)
- (4) Pack away envelope
- (5) De-rig burner
- (6) Landowner consultation
- (7) Recording of flight details in appropriate logbooks

7.3.9 Fuel management

- (1) Minimum requirements in accordance with Flight Manual
- (2) Checks
- (3) Calculations
- (4) Transfer of hoses
- (5) Refueling procedures and appropriate safety precautions

7.3.10 ATC liaison

- (1) Communications with the appropriate Air Traffic Services by radiotelephony, telephone etc as appropriate (the use of cellular telephones in flight is not permitted).

7.4 Section 4 – Navigation

7.4.1 Weather

- (1) Awareness and usage of variations in wind direction and speed at different altitudes
- (2) Prediction of potential hazards – curl over, turbulence, thermals etc.
- (3) Anticipation of conditions in landing area
- (4) Assessment of low level and surface wind speed, and direction using smoke, trees, water, crops etc.

7.4.2 Use of maps and charts

- (1) Scales and units. Conversion between units
- (2) Computation of safety altitudes and selection of altitudes for flight
- (3) Transfer of information from various types and projections of maps and charts
- (4) Amendments to flight plan, and flight log (map)
- (5) Position of balloon in relation to potential hazards and restrictions

7.4.3 ATC Liaison

- (1) Recognition of and compliance with visual signals
- (2) RT communications (where applicable)
- (3) Traffic avoidance
- (4) SAR requirements and signals
- (5) Air miss procedure
- (6) Urgency and distress signals, and procedures
- (7) Altimeter setting requirements
- (8) Observance of air traffic control regulations and Rules of the Air

7.4.4 Position Fixing

- (1) Fixing position within 500 meters of actual position (minimum of three fixes at intervals of not less than 5 minutes)
- (2) Determine track made good and ground speed
- (3) Projection of track and calculation of ETA, to within ± 3 minutes, to overhead a position nominated by the examiner
- (4) Calculation of a forecast ground position. Position to be 30 minutes ahead and based upon TMG and G/S

7.4.5 Fuel management

- (1) Calculations of fuel used

- (2) Revision of endurance based upon variations in fuel consumption
 (3) Calculation of point from which a landing could be made aiming to land with 20% usable fuel remaining

Appendix C
Balloon Grouping

Balloon Size		Balloon Group
Cubic meter	Cubic feet	A, B,C,D
708	25,000	A
879	31,000	A
1189	42,000	A
1586	56,000	A
1700	60,000	A
1841	65,000	A
1954	69,000	A
1982	70,000	A
2180	77,000	A
2265	80,000	A
2379	84,000	A
2549	90,000	A
2832	100,000	A
2973	105,000	A
EQUAL 3000	EQUAL 105,600	A
more than 3000	more than 105,600	A
3398	120,000	A
3766	133,000	B
3964	140,000	B
4106	145,000	B
4248	150,000	B
4531	160,000	B
5097	180,000	B
5663	200,000	B
5947	210,000	B
6371	225,000	B
6796	240,000	B
7079	250,000	B
7362	260,000	B
7787	275,000	B
8495	300,000	B
8920	315,000	B
EQUAL 9000	EQUAL 316,800	B
more than 9000	more than 316,800	C
9628	340,000	C
9911	350,000	C
10619	375,000	C
11327	400,000	C
EQUAL 11752	EQUAL 415,000	C
MORE THAN 11752	MORE THAN 415,000	D
12000	422,400	D
12035	425,000	D
12743	450,000	D
15008	530,000	D
16990	600,000	D
Above	Above	D

Appendix D

Microlight Training Program

1 Course Contents

1.1 PHASE 1: FAMILIARISATION EXERCISES AND FOUNDATION (3 hours)

- 1- Air experience: the first lesson
- 2- Component parts, controls and systems of the aircraft
- 3 -Preparation for flight and actions after flight
- 4 -Effects of controls
- 5 -Taxiing

1.3 PHASE 2: THE BASIC FLIGHT MANOEUVRES (1 week)

- 6 -Straight and level flight
- 7 -Basic climbing and descending
- 8 -Performance climbing and descending
- 9a- Turning flight
- 9b- Climbing and descending turns

1.5 PHASE 3: SLOW SPEED HANDLING (1 week)

- 10a- Critically slow airspeed
- 10b- Stalling, and spin avoidance
- 11- Spinning

1.7 PHASE 4: TAKE-OFF, LANDING AND CIRCUIT FLYING (1 week)

- 12- Circuit training
- 13- Advanced take-off and landing techniques

1.9 PHASE 5: ADVANCED HANDLING (3 days)

- 14- Advanced turning
- 15- Unusual attitudes

1.21 PHASE 6: OPERATIONAL HAZARDS, EMERGENCY PROCEDURES AND UNEXPECTED/UNPLANNED OCCURRENCES (4 days)

- 16a- Forced landings
- 16b- Precautionary landings
- 16c- Operation at minimum level

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- 16d- Action in the event of an engine/cockpit fire
 - 16e- Systems failure

1.23 PHASE 7: SOLO FLIGHT TRAINING (2 days)

- 17a- First Solo
- 17b- Solo circuit, local area orientation and general handling consolidation

1.25 PHASE 8: NAVIGATION (3 days)

- 18a- Pre-flight planning
- 18b- En-route navigation, departure and arrival procedures
- 18c- Navigation at minimum level and/or in deteriorating conditions
- 18d- Unsure of position and lost procedures

1.27 PHASE 9: PREPARATION FOR THE GENERAL SKILLS TEST AND GROUND ORAL EXAM (2 days)

- 19a- Dual revision for GST
- 19b- Revision for the ground oral exam
- 19c- Documentation review

2 Course details

2.1 Introduction

The National Private Pilot Licence [Microlight] (MPPL-M) syllabus is produced by the Aero Club Of Egypt (ACE) and consists of 18 defined exercises leading to the grant of a licence to fly microlight aircraft in the Egypt . The final licence is granted and regulated by the Civil Aviation Authority (ECAA) and authorises the pilot to carry a passenger on most flights. The following is a description of the exercises in the syllabus.

2.3 Exercise 1 - Aircraft Familiarisation

Normally the first entry in your logbook - though, if you took a trial flight with an instructor first, we may put Exercise 3 in before it - this is where you first get to meet the aircraft you will be training in. We will show you all of the various controls, instruments and the main component parts of the aircraft and explain, briefly, what they are for. You will be shown how we use check lists to ensure everything is done in the correct order and briefed on action to be taken in the event of a fire - both in the air and on the ground. This exercise will normally be combined with Ex 2 and either Ex 3 or Ex 4.

2.5 Exercise 2 - Preparation for flight and Action after flight

Normally combined with Ex 1 and logged right at the start, this is an ongoing part of your early training. An instructor will show you the correct way to check the aircraft prior to its first flight of the day and also how to conduct a 'transit check' if it has already flown. You will learn how to fuel the aircraft and check the fuel quality prior to flying, where the fuel is stored and where the nearest fire extinguishers are in the event of a problem. We will cover starting the engine both warm and cold and the correct rpm ranges to be used while it is warming up. Normally, from your second flight, you will be starting and shutting down the engine and we will show how the use of checklists makes this safe and simple. You will learn to park and tie down the aircraft, complete the necessary, post-flight, paperwork and how to assess the best runway for takeoff. All of this will be covered over the first few flights, a little at a time.

2.7 Exercise 3 - Air experience

If you took a trial flight with An instructor and have elected to buy a logbook to record your flight then Ex 3 will be the first entry we record. The time is counted towards your pilot licence and it will be countersigned by the instructor. If, alternatively, you have decided to start training then the instructor will probably combine this with Ex 4.

Either way, as long as the conditions are suitable, you will be offered a chance to handle the controls as you begin to feel how the aircraft responds to your inputs (Note: if you are on a trial flight and feel you do not want to handle the controls just say so - its not compulsory and you can still log the time toward your licence)

2.9 Exercise 4 - Effects of Controls

This is the first exercise where you will receive a formal briefing from your instructor. This will normally be about 20-30 mins and will be held in one of our fully equipped briefing rooms. It will be based on a whiteboard with additional use of specially prepared models and templates to improve your understanding of the concepts involved. Don't be fooled - 'effects of controls' may sound like a simple title but there's a lot to this exercise and it will take the full hour (or more) of your subsequent flight(s) to fully cover all the aspects of the briefing. The briefing is your best chance to ask questions if your understanding is not completely clear and this is encouraged - nothing says you can't ask them while flying as well but they tend to be easier to answer while in the classroom.

Once complete you should have a good understanding of how each control affects the aircraft both in flight and on the ground. Duration is normally 1 or 2 flying sessions.

2.11 Exercise 5 - Taxiing

There is no briefing for Ex 5 and this exercise is carried out every time you fly but we will likely only log it once or twice. You will learn the correct way to safely manoeuvre the aircraft on the ground with consideration for the current weather conditions, other aircraft and people in the vicinity. You will also learn what to do in the event of an urgent situation developing while taxiing (throttle jammed open, fire etc).

2.13 Exercise 6 - Straight and Level flight

Another simple title - the exercise itself is quite comprehensive. After an initial classroom briefing by your instructor you will take to the skies and will be shown how different factors can affect whether the aircraft flies in a straight line and at a constant altitude. Obviously 'straight and level' is the most efficient way for an aircraft to go anywhere so we will be working to ensure that you are able to counter any adverse external factors and keep the aircraft flying where you want it to go. Normal duration is 1-2 flying sessions.

2.15 Exercise 7 -> Climbing : Exercise 8 -> Descending

It makes sense that we can't really do one without the other so exercises 7 + 8 are combined. The briefing is a bit longer than normal because there are 2 distinct exercises in play here. You will learn to climb and descend the aircraft accurately at several different 'key' speeds and discover how each speed affects performance differently. All of our aircraft now have flaps so you will learn how flaps affect the climb or descent performance. By the end of this exercise you should be able to competently climb or descend to a given altitude and also select the required altimeter setting for your phase of the flight. Normal duration is 1-2 flying sessions.

2.17 Exercise 9a - Medium Level Turns

By now you will have learned how to make a 'balanced' turn in the aircraft and will be able to send it in the general direction that you need. This exercise is all about allowing for external influences (wind, turbulence etc) when making turns in relation to objects on the ground. It begins with a briefing from your instructor and you will then fly a number of turns learning how to adjust the aircraft's path and speed to allow for wind. Normal duration is 1-2 flying sessions.

2.19 Exercise 9b - Climbing and Descending turns

Aircraft do different things when turning depending on whether they are climbing or descending (your instructor will explain more about this in the briefing). In this session you will practice climbing and descending while turning at various bank angles and will be able to anticipate what to expect when entering one of these fully 3 dimensional situations.

2.21 Exercise 10a - Slow Flight

Sufficient airspeed is crucial to flight but there are times, mainly when landing (but there can be other reasons) when we need to slow the aircraft down to a point where we may have less than ideal speed for safe flight. This exercise explores the area of 'slow flight' and its subsequent effects on control of the aircraft and safe recovery techniques to restore normal flight as quickly as possible. The exercise covers the special checks made prior to adopting this mode of flight and, by the end, you will be able to recognise the 'symptoms' of slow flight and how to restore the aircraft to normal flying in the minimum time.

2.23 Exercise 10b - Stalling

Contrary to what the press may try to tell you - an aircraft does not simply stop flying when it stalls (nor is this, in any way, related to engine problems). A wing will stall for a number of reasons but, generally, this will be due to losing too much airspeed - it doesn't stop flying but it does stop producing enough lift to keep the aircraft flying normally. This exercise explores the regime of the stall and the various recovery possibilities that exist. You will learn that a stall is not such a big event as long as it is correctly, and immediately, recovered and the fastest way to recover the aircraft to normal flight in a number of different flight configurations. It is essential, prior to commencing work in the circuit (Ex 12 + 13) that this exercise has been properly completed. Normal duration is 1 flying session and may be combined with Slow Flight (Ex 10a)

2.25 Exercise 11 - Spin awareness

Spinning is a dangerous condition for an aircraft and can occur as a result of mis-handling of the controls. Aircrafts operate under a 'permit to fly' which states, as part of its conditions, that intentional spinning is prohibited. This means that the instructor is unable to demonstrate a spin and the actions required to recover from it - instead the focus will be on training the students to instinctively avoid any of the combinations of conditions which could lead to an unintentional spin. This is continuous across all of our flying training but the formal part of this exercise (when it is placed in your log book) is a discussion with an instructor to ensure the student understands the flight conditions which could lead to a spin.

2.27 Exercise 12 - Takeoff and Climb to Downwind Position : Ex 13 Circuit, Final Approach and Landing

Once you are ready for 'circuit' work your instructor will deliver an in-depth briefing (this one is about 30-40 mins) detailing every step of the circuit [the pattern you fly around the airfield to be predictable to other aircraft and to set up for a consistent landing]. Your first circuit will normally be a demo circuit where your instructor will fly the whole circuit and talk you through each of the points which were briefed - you may ask him to do more than one if you feel it was a bit much in one go. After that its time for you to have a go - the aim is now to start teaching you to fly a consistent circuit and set up a good approach to land on every one - this is where you will now learn to land the aircraft.

These two exercises are the most crucial (and certainly the most frequent) in the whole syllabus and you can expect to spend quite a few hours on this [the instructor will, occasionally, use a later exercise to give you a break from 'non stop circuits'] until you have landing down to a fine art and emergencies in the circuit nailed. Duration of this exercise depends entirely on student aptitude combined with conditions at the time of flights and no estimate is possible.

2.29 Exercise 14 - Advanced Turning (up to 60 degrees of Bank)

The licence privileges say pilots can fly at up to 60 degrees of bank and 45 degrees of (nose up/down) pitch. Turning at such high bank angles, whilst very efficient, requires a lot more control on the part of the pilot and this exercise introduces you to some of the more extreme edges of the 'permitted flight envelope'. You will learn to handle changes in 'what controls what' as well as the difference in your view of the world as a pilot when executing such manoeuvres. As part of this exercise you will also learn how to avoid entry into a 'spiral dive' and also how to safely exit one

should you enter it inadvertently. Duration is normally about 1 hour but you will revisit this exercise as required until it is second nature.

2.31 Exercise 15 - Unusual Attitudes and Dangerous Conditions of flight

As a logical extension of the previous Ex 14, Ex 15 aims to take the student to the absolute edge of the permitted flight envelope. You will, by now, have experienced 60 degs of bank so we will now introduce up to 45 degs plus/minus of pitch and also full power/no power scenarios. Again this exercise will be revisited as often as needed but the end result will be that you can recover the aircraft to safe flight from just about any position we can put you in - and that you will have the confidence to fly to the edge of the envelope without worrying that you may not have the necessary skills to get out of any trouble you may find yourself in.

2.33 Exercise 16a (Parts 1 and 2) - Forced Landings Without/With power

In the unlikely event of an engine failure . You will be taught how to assess a suitable landing field for the aircraft type, accounting for the wind direction and strength and how to set the aircraft up for a safe and successful approach to your chosen field. Calming your passenger and shutting the engine, fuel and electrical systems down prior to landing are all part of this exercise and you will revisit this one until you have it to a tee. You can expect to spend several sessions on getting this right since this is the one that will save you and your passenger's lives when the unthinkable happens - you can also expect this to be the theme of any 'revalidation' flights after you have your licence. Part 2 of the exercise works on what to do when you still have a working engine but you are still compelled to land (sick passenger or pilot, rough running engine, fire etc) - we will look at how to assess a suitable field, check the surface and surroundings and set up for a safe 'precautionary' landing.

2.35 Exercise 16b - Operation at minimum level

Egypt weather is quite unpredictable and its not uncommon to find yourself flying into areas where the clouds are getting lower. We are not allowed to climb through the clouds so its important to be able to decide whether to continue, turn round or even land to remain safe. This exercise looks at how to handle the job at very low level - there are huge differences in how the land appears when low down and also rules on how low we can fly in certain circumstances. You will learn how to navigate with a restricted view of the terrain, how to ensure you always have an available landing area, the rules you need to comply with to continue and how to approach the airfield in such conditions. We will normally simulate an engine failure at low level as part of the session so that you are prepared for such an event even under the additional pressure of flying so low down.

2.37 Exercise 17a - First Solo Flight

There is no prescribed time for this one. You will have carried out numerous circuits (Ex 12+13), several sessions of practice engine failures (Ex 16a) plus a number of sessions where we simulate engine failure whilst in the circuit. You will be doing all of the flying without any assistance, your checks will be faultless, your ability to handle any emergency situation will be without question and all of your take offs and landings will be consistent. When you reach this point in your flying training the

instructor will decide that its time to let you have a go on your own and will ask you how you feel about trying this. If you feel at all unsure then you should say so and we will carry on until you do feel ready. If you are happy to go then your instructor will brief you on the flight, carry out a radio check before you depart and will be on the airfield with a radio on hand for the whole of this first solo flight. This is a defining moment for any pilot and you will never forget your first time - you will only ever log Ex 17a once.

2.39 Exercise 17b - Solo circuit, local area, general flying consolidation

Once you have reached solo standard (and assuming the weather is suitable) you will embark on several hours of solo flight. This will normally start with one or two sessions in the circuit and then you will begin to move further out into the local area. Your instructor will brief you on each flight and will help you plan a route and mark it on a chart (map). As you progress with these exercises you will learn the local terrain and landmarks and will develop an instinctive knowledge of how to return to the airfield from any given point.

2.41 Exercise 17c - Dual revision for General Skills Test

There are two licences available - full and restricted. The restricted licence places limits on the weather conditions you can fly in and the distance you may fly from the airfield. Generally we will try to take you straight to a full licence but, at certain times of the year or depending on your own time availability, it may be better to put you through the General Skills Test before you have completed everything required for a full licence. If this is the case then you will begin Ex 17c after completing 7 hours of solo flight - if we are going for the full licence then you will have completed 10 hours of solo flight including no less than 3 hours of navigation training (Ex 18). The dual revision takes the form of a 'mock test' and we will take you through every part of the syllabus in one session - you will need to demonstrate a high standard in all of the exercises and your instructor will work with you to iron out any bad habits which have crept in or areas where your understanding of the concepts involved may be lacking. This can last for a number of sessions until all of the aspects of the syllabus are up to 'test' standard. By the time this is completed you should be ready to face the General Skills Test.

2.43 Exercise 18 - Pilot Navigation

Working with your instructor you will plan a cross country flight to another airfield. You will learn how to calculate the effect of wind on your flight, assess the en-route weather for suitability, contact the destination for permission to land, calculate the fuel required, plan a diversion in case your destination proves to be unreachable and check for any airspace restrictions in the area. You will fly, with your instructor, to the destination, land there and complete the necessary paperwork and then return to Clench Common. During the flight you will be learning how to ensure you stay on track, maintain the correct speed and altitude and join the circuit at an unfamiliar airfield. It may take more than one of these 'dual' flights before your skills are suitable for you to do it on your own. Once you have reached the required standard you will fly the same route solo. The second cross country flight will be to a different airfield and may or may not be completed with an instructor first. By the time you have completed this exercise you will have flown at least 3 hours of solo navigation training flights.

2.45 General Skills Test

This is the culmination of your initial flying training. Once your instructor(s) are satisfied that your skills are up to the sufficient standard for a test you will be booked for a session with our Flight Examiner. You will be required to prepare the aircraft for flight and will then be briefed, by the examiner, on the general content of the test along with the possible outcomes. You will then fly the aircraft following instructions from the examiner who will ask you to demonstrate every part of the syllabus. You will be responsible for the whole of the flight (legal compliance, weather considerations, safety factors, navigation etc) and the examiner will observe [and take notes] on your performance. You will need to demonstrate a high standard of handling, knowledge, navigation and general awareness. At several points during this test the examiner will simulate an engine failure by reducing the engine power to idle and you will be expected to demonstrate a safe approach to a suitable landing area in each case. By this stage your approach to the airfield, circuit discipline and landing should be excellent. Assuming all goes well the examiner will tell you that he is happy to pass you and will take you through the paperwork required to complete your application for a licence. From here on you can truly start the task of learning to fly .