

1 Training Requirements Application Manual

1.1 Introduction

This document is a guideline covering the minimum training requirements, defined by the Lugano Airport Authority and approved by the Swiss Federal Office for Civil Aviation (FOCA), to obtain the corresponding qualification type A, B, C or D.

The requirements contained in this document do not exempt an operator or a pilot from complying with the overall governing regulations, such as EASA and national rules.

The training for pilots wishing to operate in Lugano shall fulfil the training according to the Commission Regulation 965/2012, Annex III, Part-ORO.

1.2 Pilot Qualification

To operate at Lugano under IFR or commercial VFR, pilots must hold a valid pilot qualification for the applicable type of operation and flight procedures.

Under flight operations that require a pilot qualification B, C or D only the pilot in command or the pilot under instruction has the right to conduct the landing and the take-off in Lugano.

The Lugano Airport Authority has the right to deny or withdraw a Pilot qualification, as well as to request additional requirements or clarifications.

1.3 Applicability

The guidelines of this Training Manual are applicable for the training of aeroplane flight crews and instructors intending to operate under IFR or VFR commercial at Lugano only.

Helicopter flight crews are allowed to operate without Lugano qualification.

All pilots holding a valid qualification before the approval of this TRAM update remain qualified.

2 Procedures to obtain the qualification

2.1 Overview

REQUIREMENTS OVERVIEW							
Flight Procedure	Flight Operation				Pilot Qualifications	Operator Qualification Procedures	Aircraft Performances
Approach and Landing 1	- VFR commercial				Type A	NIL	NIL
	- IFR Visual APP						
	- LOC R01, Circling C R19	(VIS 5000 m or more and ceiling	-Day Only-				
	- LOC R01, Circling F R19	3100 ft AAL or higher)					
	- LOC R01 Circling C R19	(VIS 3000 m or more)	-Day-	Type B	Approved contingency procedure for circling missed approach required	NIL	
		(VIS 5000 m or more)	-Night-				
		(ceiling 1700 ft AAL or higher)	-Day and Night-				
	- IGS				Type C	NIL	glide > 6° See Explanation § 3.2
Departure 1	- IFR Departure				-	-	-
	Take-off	SE/MIE	VIS 3000 m or more and ceiling 2100 ft AAL or higher		Type A	NIL	NIL
		ME	VIS 400 m or more and less than 3000 m		Type D	Approved contingency procedure for take-off RWY 19 or 01 required	NIL
		SE	VIS 800 m or more and less than 3000 m, ceiling 1200 ft AAL or higher				

1 VFR according SERA and Swiss AIP.

Note: VIS = Visibility. Visibility is meant as reported Meteorological Visibility

2.1.1 Type A

The pilot applies for the Pilot qualification type A to the Lugano Airport Authority on : www.lugano-qualification.ch. The qualification consist in a familiarization briefing and a test with multiple-choice questions. The Lugano Airport Authority verifies the validity of the application in the Lugano Qualification database where all relevant data are automatically collected.

2.1.2 Type B

The operator submits its training syllabus with the related approved contingency procedure to the respective NAA for approval and transmits the approval confirmation to the Lugano Airport Authority.

The pilot in command performs the training according to the training syllabus approved by the respective NAA. Once done, the operator transmits an updated list of operator/pilots who obtained the Type B qualification to the Lugano Airport Authority which it will be classified as per operator name, in a dedicated binder.

2.1.3 Type C

The operator submits its training syllabus to the respective NAA for approval and transmits the approval confirmation to the Lugano Airport Authority.

The operator presents the corresponding AFM supplements or a "Letter of non-objection" (described in chapter 3.2) to the Lugano Airport Authority.

The pilot in command performs the training according to the training syllabus approved by the respective NAA. Once done, the operator transmits an updated list of operator/pilots/aeroplane who obtained the Type C qualification to the Lugano Airport Authority which it will be classified as per operator name, in a dedicated binder.

2.1.4 Type D

The operator submits its training syllabus with the related approved contingency procedure to the respective NAA for approval and transmits the approval confirmation to the Lugano Airport Authority.

The pilot in command performs the training according to the training syllabus approved by the respective NAA. Once done, the operator transmits an updated list of operator/pilots who obtained the Type D to the Lugano Airport Authority which it will be classified as per operator name, in a dedicated binder.

3 Minimum training requirements

3.1 Syllabus

The following subchapter syllabus are intended to identify the qualification's minimum training. The operator is free to combine the qualification syllabus exercises according to its company syllabus set up, nevertheless before any qualification B, C or D training the pilot must fulfill first the online qualification A.

		Qualification A	Qualification B	Qualification C	Qualification D
Approach	VFR - CAT	X			
	IFR	X	X	X	
Departure	VFR - CAT	X			
	IFR	X			X

Note: Approval required.

3.1.1 Qualification Type A

A Theoretical Airport self-Instruction on-line include the following sections:

- LSZA general operational requirements,
- Local weather phenomena and dangers,
- LSZA orographic and topographic situation, including all relevant obstacles,
- APP and DEP procedures, VFR or IFR, Contingency Procedure for OEI,
- Noise abatement procedure
- Communication procedures,
- Aircraft performance, AEO and OEI,
- Emergency procedures and if applicable, the relevant company contingency procedures.

3.1.2 Qualification Type B

The Pilot in command shall:

- Pass the On-line test to get the qualification A
- Practice as Flying Pilot, including at least :
 - One approach LOC RWY 01 for Circling C RWY19 AEO, followed by a go-around at MDA/ MAP, with a simulated one-engine inoperative (TRI Unrestricted, SFI when in FFS) or OEI performances with symmetric thrust reduction (other instructors when in the aeroplane);
 - One approach LOC RWY 01 for Circling C RWY19 AEO, followed by a circling C with a go-around from circling, according to company contingency procedures; and
 - One approach LOC RWY 01 for Circling C RWY19 AEO, followed by a circling C to a full stop LDG.

On a multi-pilot aircraft, the first officer has to pass at least the qualification A.

Note: Operational experiences in Lugano, as per best practice, shows that a SIC or a FO with an introduction to the above training as per Pilot Monitoring will give the best crew efficiency on Application of Procedures and compliance with regulation, Communication, Leadership & Teamwork, Problem-solving-Decision-making, Situation awareness and management of information and Workload management.

3.1.3 Qualification Type C

The Pilot in command shall:

- Pass the On-line Test to get the qualification A
- Practice as Flying Pilot, including at least :
 - One approach IGS RW01 AEO, followed by a go-around at DA, with a simulated one-engine inoperative (TRI Unrestricted, SFI when on FFS) or OEI performances with symmetric thrust reduction (other instructors when in the aeroplane); and
 - One approach IGS RWY01 AEO, followed by a full stop LDG.

If the commander has not been previously qualified for steep approach, a basic training should be done, including at least 4 landings out of steep approach angles at or higher than 5.5°.

On a multi-pilot aircraft, the first officer has to pass at least the qualification A.

Note: Operational experiences in Lugano, as per best practice, shows that a SIC or a FO with an introduction to the above training as per Pilot Monitoring will give the best crew efficiency on Application of Procedures and compliance with regulation, Communication, Leadership & Teamwork, Problem-solving-Decision-making, Situation awareness and management of information and Workload management.

3.1.4 Qualification type D

The Pilot in command shall:

- Pass the On-line test to get the qualification A
- Practice as Flying Pilot, including at least :
 - One take-off runway 01 climbing onto the SID or applicable contingency procedure with a simulated one-engine inoperative (TRI Unrestricted, SFI when on FFS) or OEI performances with symmetric thrust reduction (other instructors when in the aeroplane) ;
 - One take-off runway 19 climbing onto the SID or applicable contingency procedure with a simulated one-engine inoperative (TRI Unrestricted, SFI when on FFS) or OEI performances with symmetric thrust reduction (other instructors when in the aeroplane).

On a multi-pilot aircraft, the first officer has to pass at least the qualification A.

Note: Operational experiences in Lugano, as per best practice, shows that a SIC or a FO with an introduction to the above training as per Pilot Monitoring will give the best crew efficiency on Application of Procedures and compliance with regulation, Communication, Leadership & Teamwork, Problem-solving-Decision-making, Situation awareness and management of information and Workload management.

3.2 Operational characteristics for IGS RWY 01

For aircrafts certified for steep approaches of 6.65 ° or more, the instrument approach procedure IGS 01 can be used at an angle of 6.65 ° for the entire approach to landing.

For aircrafts certified for steep approaches with an angle between 6 ° and 6.64 °, the use of the instrument approach procedure IGS 01 is regulated as follows:

- The aircraft shall obtain a "Letter of non-objection" from the manufacturer to carry out approaches with a maximum angle of 6.65°.
- The approach takes place at an angle of 6.65 degrees from the Final Approach Fix (FAF) to the Decision Altitude (DA). The next landing phase starting from the DA is carried out with a maximum angle of 6° using the PAPI (Precision Approach Path Indicator).
- The aircraft must be stabilized at the latest at an altitude of 500 feet above the airport elevation; otherwise the approach procedure must be interrupted and a go-around procedure must be initiated.
- For aeroplane with approved AFM supplement or annex for steep approach, fulfilling the IGS angle of descend requirement, the tail wind component limitation must not exceed the AFM limitation value from the steep approach supplement or annex. For all other aeroplanes the tail wind component must not exceed half of the value of the tail wind component according the AFM.
- The maximum discrepancy allowed along the trajectory corresponds to a half scale on the glide-slope Indicator (usually 1 "dot"). If this limit is exceeded, a go-around procedure must be carried out without exception.

3.3 Qualification for Instructors

Any instructor rating with IR instructor privileges or a training organisation, approved by his/her National Aviation Authority, may conduct the Lugano airport qualification training, provided he/she holds a valid Lugano qualification level(s) related to the type of qualification(s) where applicant seeks privileges.

Fifteen (15) instrument approaches and take-offs on site as PF on the applicable qualification are necessary prior to conduct Lugano airport qualifications as an instructor. The instructor must be approved by the airport authority after he/she will present his/her:

- Aviation CV;
 - evidences of the qualification validity;
 - minimum PF approaches and take-offs;
 - instructor and IR instructor privileges;
- before becoming an approved Lugano instructor.

3.4 Training environment for qualification B, C and D

The practical Training, must be conducted on the aircraft at LSZA, the meteorological conditions shall be at least VIS > 5000 meters and ceiling > 5000 ft QNH.

Training may be conducted on a certified:

- Full Flight Simulator (FFS) having visual scenery of LSZA; or
- Flight Training Device (FTD) having visual scenery of LSZA

The FFS or FTD conformity must be checked by the Lugano Airport Authority, before the device will be used for training. A corresponding FFS/FTD's list will be published.

If the FFS or FTD or the scenery is not available, the training shall be conducted on the corresponding aircraft Class or Type at Lugano Airport.

FTD can only be used for the instrument approach procedure (IGS), NOT for landings out of steep approach angles at or higher than 5.5°.

4 Validity

4.1 Qualification Type A

Airport qualification type A is valid for two years.

4.2 Qualification Type B, C and D

Pilots must hold a valid qualification type A.

The pilot in command shall fly at least 1 IFR approach into and 1 IFR departure from LSZA within a 12 months period.

In case of an interruption of the recency of 12 months and more, the applicable minima for the first 3 approaches shall be augmented by 500 feet for Ceiling and the applicable visibility by 1000 meters.

In case of an interruption of the recency of 24 months and more, a new qualification B , C or D is required.

FFS or FTD cannot be used as per validity requirements.

5 Guidance Material

5.1 Operator, Pilot and Aeroplane List

As per TRAM 3.1.2, 3.1.3, 3.1.4 the Operator need to produce a list of qualified pilots. For qualification C the aeroplane must be listed and AFM supplement presented with the Letter of No Objection if required. After the training is completed, the list must be forward to Lugano Airport Authority's e-mail:

airportauthority@luganoairport.ch

The Operator, Pilot and Aeroplane List must be updated by the operator any time:

- a new Pilot is certified for qualification B, C, or D;
- in case a pilot listed lost his/her Qualification privileges by Validity requirements (TRAM § 4);
- a new change in the aeroplane type or serial number or registration.

The lists (operator/aeroplane/pilot) must be transmitted to Lugano Airport Authority's e-mail before the qualified pilot use the qualification privileges. The Lugano Airport Authority will reply with a TRAM requirement conformability e-mail reply, never the less the new list must be sent not later than 10 working days from the training date.

Pilots	Flight Crew Member		Licence		Aeroplane	Flight Crew Member Qualification						Responsible Instructor First and last name
	Last Name	First Name	Type	N°	Type	Type B	Type C	Type D	SPO	MPO	Training Date	

Aeroplane	Manufacture	Registration Mark	Type	sn	Type of Operation			Steep Approach approved up to		Letter of no Objection	
					CAT	NCC	NCO	≥ 6,65°	< 6.65°	Yes	No

Operator	Name	NAA	Type of Operation			Steep Approach approved up to		Letter of no Objection	
			CAT	NCC	NCO	≥ 6,65°	< 6.65°	Yes	No