APPROVED TRAINING ORGANIZATION

ATO

OPERATION MANUAL

KAAN-ATOD-02

Rev - 7

24.04.2024

APPROVAL PAGE

This manual has been prepared in compliance with the national and international references and standards.

We are aware that DGCA will approve our activities as long as they are compliant with the rules and regulations and; has the right of suspending, changing or cancelling our privileges in the presence of any inconvenience .

In case of any changes in the procedures and activity address; including the scope, the mentioned change will be inserted into this manual and will be sent for approval to DGCA.

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DIRECTORATE GENERAL OF CIVIL AVIATION

ONAY SERTİFİKASI
APPROVAL CERTIFICATE

İŞLETME EL KİTABI
OPERATION MANUAL

KAAN HAVACILIK SANAYİİ VE TİCARET A.Ş.

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Bu El Kitabı, SHT-ORA'ya uygun olarak incelenmiş ve değerlendirilmiş olup; Uçuş Operasyon Daire Başkanlığı tarafından kabul edilmiştir.

This Manual has been inspected and evaluated in accordance with SHT-ORA and accepted by the Flight Operations Department.

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bağlı kuruluşudur.

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Gereğini ve bilgilerinizi rica ederim.

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Ek:

1 - Eğitim El Kitabı Onay Sertifikası. (1 Sayfa)

2 - İşletme El Kitabı Onay Sertifikası. (1 Sayfa)

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0.2 REVISION LIST

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0	30.12.2017	All Pages (Initial Issue)	Total Revision due to SHT and EASA Part-FCL	Kadir ERDOĞAN
1	20.09.2018	0-1 …7, 0-10, 0-12, 1-1, 1-9, 1-12, 1-13, 4-5. 2-1, 2-4, 2-5,	- Revision law SHT-FTL/HG - Assign A/C for training (TC-HKI, TC-HKT)	F. Ersel ÇINAR
2	02.04.2019	0-3..7, 9, 10, 13, 1-6, 10, 2-1, 5 A-B, 6 A-B, 14..16, 3-1, 4..7, 4-5, 7..10	- Revision due to SHT-KONTROL PILOTLUGU Directives - New type for training (KAMOV KA32)	Kadir ERDOĞAN
3	21.03.2020	0-1…7, 2-1, 2-3, 2-5A, 2-14...16, 3-1, 3-3, 3-4, 4-1...4	- Removal of ENF-480 from Authorized Types - Updating Type Refresher Requirements	İsmail TÜRK
4	02.09.2021	0-1..2 0-6..7 1-12	- ATO HT Change - Revision pages - FDP and FT for students	Seyit Emrah CANBAZGİL
5	03.06.2022	All Pages Including and Especially; 1-6 3-3 3-7	English Version, complete revision Instructor / Examinar Assignment Procedures Flight Planning-Minimum Safe Altitudes revised A119 added to wind limitations	Seyit Emrah CANBAZGİL
6	07.12.2023	0-1..7, 0-9, 1-4, 6, 1-8, 9, 1-10, 1-13, 2-14, 16, 3-4..6 3-7, 3-8, 10 4-4 4-7 4-11..12	Cover, Rev-List, Cur-Pg-L, Definitions, Reference, SHT-APAM reg chg., A/C Documentation, Retention, Revalidation & Renewal Rest Periods, H-Tech-Log sample, Radio & NAV, New Mass & Balance Sheets Examiners added to captions, Added new Airport to list, map Theo.Know.Tr. subjects, TRI Course revised table, New TRE Standardisation	Seyit Emrah CANBAZGİL
7	24.04.2024	0-1..10, 2-1, 3..4, 13..15, 3-1, 3..7 4-1	Cover, Rev-List, Cur-Pg-L, Definitions KA32 type out of approved rates “ “ “ “	Seyit Emrah CANBAZGİL

0.3 CURRENT PAGE LIST

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0.4 DEFINITIONS

- "**Aircraft**" means any machine which can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.
- "**Airmanship**" means the consistent use of good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives.
- **Approach and Landing Phase :** The period of the flight from FATO to 1000 feet altitude.
- **Approved Training Organization :** An organization qualified for the issue or continuation of an approval to provide training for pilot licenses and associated ratings and certificates;
- "**Assessment of competence**" means the demonstration of skills, knowledge and attitude for the initial issue, revalidation or renewal of an instructor or examiner certificate.
- **Authority:** Directorate General of Civil Aviation (DGCA);
- **Balked Landing:** A landing maneuver that is unexpectedly discontinued below DA(H)/MDA(H) or beyond MAP;
- '**Category of Aircraft'** means a categorization of aircraft according to specified basic characteristics, for example Aeroplane, powered-lift, helicopter, airship, sailplane, free balloon;
- **'Cat A With Respect To Helicopters'** means a multi-engine helicopter designed with engine and system isolation features specified in the applicable airworthiness codes and capable of operations using take-off and landing data scheduled under a critical engine failure concept that assures adequate designated surface area and adequate performance capability for continued safe flight or safe rejected take-off in the event of engine failure;
- **'Category B With Respect To Helicopters'** means a single-engine or multi-engine helicopter that does not meet category A standards. Category B helicopters have no guaranteed capability to continue safe flight in the event of an engine failure, and unscheduled landing is assumed;
- **Commercial Air Transport:** An aircraft operation involving the transport of passengers, cargo, or mail for remuneration or hire;
- "**Competency**" means a combination of skills, knowledge and attitude required to perform a task to the prescribed standard.
- **Completed Take-Off :** To continue safe take-off by evaluating the performance without aborting when the engine fails at TDP**;**
- **Computer Based Training:** A type of education in which the student learns by executing special training programs on a computer approved by DGCA;
- **Credit** means the recognition of prior experience or qualifications;
- **Decision Altitude/Height (DA/H):** A specified altitude or height in the precision approach at which a missed approach must be initiated if the required visual reference to continue the approach has not been established;
- **Defined Point After Take-off (DPATO):** The point, within the take-off and initial climb phase, before which the helicopter's ability to continue the flight safely, with the critical engine inoperative, is not assured and a forced landing may be required;
- **Defined Point Before Landing (DPBL)** means the point within the approach and landing phase, after which the helicopter's ability to continue the flight safely, with the critical engine inoperative, is not assured and a forced landing may be required;
- **Elevated Final Approach And Take-Off Area (elevated FATO)**: A FATO that is at least 3 m above the surrounding surface.
- **Examiner Pilot :** Instructor pilot designated to conduct pilots'/candidates' skill, proficiency tests and Instructor / Examiners' assessment of competency tests whose privileges are approved by DGCA.
- **Final Approach And Take-Off Area (FATO) :** defined area for helicopter operations, over which the final phase of the approach maneuver to hover or land is completed, and from which the take-off maneuver is commenced;
- **Flight Crew Member :** A licensed crew member charged with duties essential to the operation of an aircraft during flight time;
- **Flight Duty Period :** The period of the flight crew from the beginning of the duty time till the end of the flight including pre-flight preparations;
- **Flight Instructor:** Flight Instructors are pilots who are authorized to carry out flight instruction for issuance, revalidation or renewal of any pilot license or rating;

- **'Flight Manual'** is a manual associated with the certificate of airworthiness, containing limitations within which the aircraft is to be considered airworthy, and instructions and information necessary to the flight crew members for the safe operation of the aircraft;
- **Flight Plan :** A written statement (as by a pilot) of the details of an intended flight usually filed with an authority;
- **Flight Simulation Training Device (FSTD):** A training device which is a full flight simulator (FFS), a flight training device (FTD) or a flight and navigation procedures trainer (FNPT);
- **'Flight Time – Helicopter'** means the total time from the moment a helicopter's rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight, and the rotor blades are stopped;
- **'General Aviation (GA)'** means all civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire;
- "**Helicopter**" means a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.
- **'Helideck'** means a FATO located on a floating or fixed offshore structure;
- **'Heliport'** is an aerodrome, or a defined area on a structure, intended to be used wholly or in part for the arrival, departure, and surface movement of helicopters;
- **Heliport Operating Minima :** Operational limits of a heliport depending on visibility and the lateral/vertical distance from the clouds;
- **In Class Training:** The training in ATO by the participation of trainees and the instructors of which the time and date is pre-determined;
- **'Instrument Flight Time**' means the time during which a pilot is controlling an aircraft in flight solely by reference to instruments;
- **'Instrument Meteorological Conditions IMC'** are meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions (VMC);
- **Landing Decision Point – LDP** means the point used in determining landing performance from which, an engine failure having been recognized at this point, the landing may be safely continued or a balked landing initiated;
- "**Line flying under supervision" (LIFUS)** means line flying after an approved zero flight time type rating training course or the line flying required by an operational suitability data (OSD) report.
- **Local Day - Rest** : The 24 hours period commencing at 00:00 (local time);
- **Local Night – Rest** : Any 8 hours of falling between [22:00 and 08:00] local time (for example 22:00-06:00, 23:00-07:00 or 00:00-08:00 etc.),
- **Master Minimum Equipment List (MMEL):** A list established for a particular aircraft type by the organization responsible for the type design with the approval of the State of Design which identifies items which individually may be unserviceable at the commencement of a flight**;**
- **Member Country:** Turkey and EASA member countries;
- **Minimum Descent Altitude/Height (MDA/H):** A specified altitude or height in a non-precision approach or circling approach below which descent must not be made without the required visual reference;
- **Minimum Equipment List (MEL) :** A **list** which provides for the operation of aircraft, subject to specified conditions, with particular equipment inoperative (which is) prepared by an operator in conformity with, or more restrictive than the MMEL established for the aircraft type;
- **'Ministry'** is Ministry of Transport Directorate General of Civil Aviation;
- "**Multi-pilot operation**" means an operation requiring at least two pilots using multi-crew cooperation in either a multi-pilot or a single-pilot aircraft.
- "**Multi-crew cooperation**" (MCC) means the functioning of the flight crew as a team of cooperating members led by the pilot-in-command.
- "**Multi-pilot aircraft**": helicopters, airships and powered-lift aircraft, it means an aircraft which is certificated for operation with a minimum crew of at least two pilots or which is required to be operated with at least two pilots in accordance with Regulation (EU) No 965/2012.
- **'Night'** means the period between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise as may be prescribed by the appropriate authority, as defined by the Member State;

- **Operating Site:** A site, other than an aerodrome, selected by the operator or pilot-in command or commander for landing, take-off and/or external load operations;
- **Operation in Performance Class 1:** An operation that, in the event of failure of the critical engine, the helicopter is able to land within the rejected take-off distance available or safely continue the flight to an appropriate landing area, depending on when the failure occurs;
- **Operation in Performance Class 2:** An operation that, in the event of failure of the critical engine, performance is available to enable the helicopter to safely continue the flight, except when the failure occurs early during the take-off maneuver or late in the landing maneuver, in which cases a forced landing may be required**;**
- **Operation in Performance Class 3:** An operation that, in the event of an engine failure at any time during the flight, a forced landing may be required in a multi-engine helicopter and will be required in a single-engine helicopter;
- **Operator:** A person, organization, or enterprise engaged in or offering to engage in aircraft operation;
- "**OSD**" means the operational suitability data established in accordance with Annex I (Part-21) to Regulation (EU) No 748/2012.';
- **Pilot-in-Command :** The pilot designated as being in command and charged with the safe conduct of the flight;
- **Pilot:** To manipulate the flight controls of an aircraft during flight time ;
- **Proficiency Check:** The demonstration of skill to revalidate or renew ratings, and including such oral examination as may be required;
- **Qualification:** The level of technical ability of an FSTD as defined in the compliance document;
- **Refresher Training:** The training needed to renew the expired privileges of flight crew.
- **Renewal :** To renew the privileges which have expired;
- **Revalidation: T**he administrative action taken within the period of validity of a rating or certificate which allows the holder to continue to exercise the privileges of a rating or certificate for a further specified period consequent upon the fulfilment of specified requirements;
- **Runway Visual Range (RVR):** The range over which the pilot of an aircraft on the center line of a runway can see the runway surface markings or the lights delineating the runway or identifying its center line;
- '**Safe Forced Landing**' means an unavoidable landing or ditching with a reasonable expectancy of no injuries to persons in the aircraft or on the surface;
- **Single Day-Off – Rest**: The period being free of any duty and comprising of one local day and two local nights;
- **Skill test:** The demonstration of skill for a license or rating issue, including such oral examination as may be required;
- **Take-off and Initial Climb Phase :** Phase of the flight from take-off point to 1000 feet altitude.
- **Take-off Decision Point (TDP) :** The point used in determining take-off performance from which, an engine failure having been recognized at this point, either a rejected take-off may be made or a take-off safely continued;
- **Test Flight Training:** The training required by the pilots to be able to perform test flights;
- '**Type of Aircraft**' means a categorization of aircraft requiring a type rating as determined in the operational suitability data, and which include all aircraft of the same basic design including all modifications thereto except those which result in a change in handling or flight characteristics;
- **Type Rating Course:** The course needed to have a Type Rating;
- **Third Party Country:** The countries other than Turkey and EASA member countries;
- **"Threat"** means events or errors which occur beyond the influence of the flight crew, increase operational complexity and which must be managed to maintain the margin of safety.
- **"Threat management"** means the process of detecting and responding to the threats with countermeasures which reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired aircraft states.
- **'Variant'** means an aircraft or a group of aircraft within the same pilot type rating that has differences to the base aircraft requiring difference training or familiarization training;
- **'Visual Meteorological Conditions (VMC)'** means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling equal to or better than the specified minima;

0.5 ABBREVIATIONS

A/C	Aircraft
ACAS	Airborne collision avoidance system
AD	Airworthiness directive
ADS	Air Data System
AeMC	Aeromedical Centre
AEO	All Engine Operative
AHRS	Attitude and Heading Reference System
AIS	Aeronautical information service
AltMOC	Alternative Means of Compliance
AM	Accountable manager
AMC	Acceptable Means of Compliance
AME	Authorized Medical Examiner
APU	Auxiliary Power Unit
ARA	Authority requirements for aircrew
ATC	Air Traffic Control
ATO	Approved Training Organization
ATPL	Airline Transport Pilot License
BRF	Preflight Briefing
CBT	Computer-based training
CFI	Chief Flight Instructor
CL	Check List
CM	Compliance Monitoring
CMP	Compliance Monitoring Program
CMS	Compliance Monitoring System
CPL	Commercial Pilot License
CPL/IR	Commercial Pilot License/ Instrument Rating
CQB	Central Question Bank
CRM	Crew Resource Management
CS	Certification Specification
CTKI	Chief Theoretical Knowledge Instructor
DBRF	De-Briefing
DG	Dangerous goods
DH	Decision Height
DGCA	Directorate General of Civil Aviation
DME	Distance Measurement System
DPATO	Defined Point After Take-off
DPBL	Defined Point Before Landing
DU	Display Unit
EASA	European Union Aviation Safety Agency
EFIS	Electronic Flight İnstrument System
EGPWS	Enhanced Ground Proximity Warning System

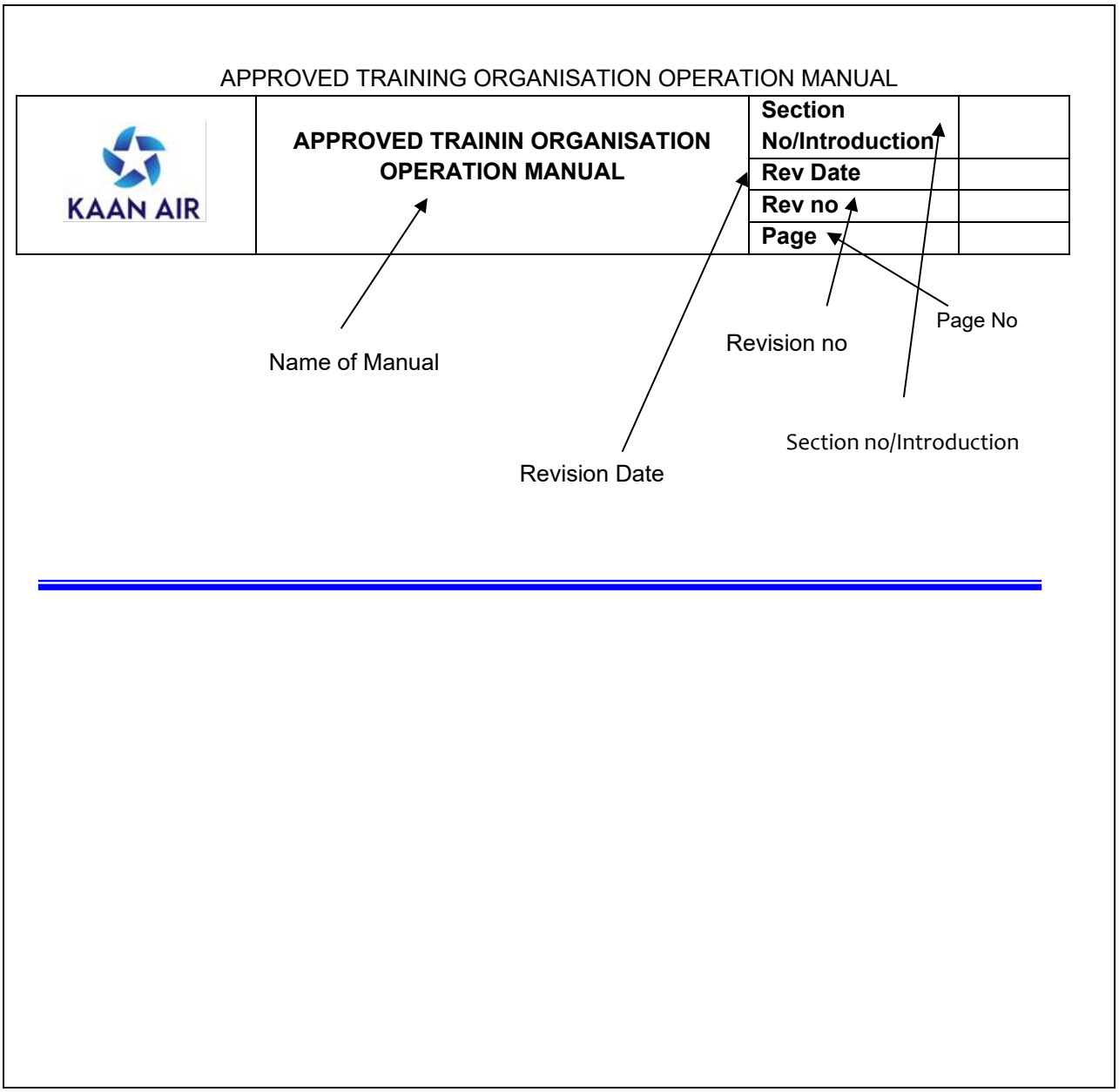
ERP	Emergency Response Plan
EU	European Union
FATO	Final Approach And Take-off Area
FCL	Flight Crew Licensing
FE	Flight Examiner
FFS	Full Flight Simulator
FI	Flight Instructor
FIE	Flight Instructor Examiner
FM	Flight Maneuvers
FMS	Flight Management System
FNPT	Flight and Navigation Procedures Trainer
FRT	Flight Renewal Training
FS	Flight Simulator
FT	Flight Training
FTD	Flight Training Device
FSTD	Flight Simulation Training Device
FTD	Flight Training Device
FTL/HG	Flight Time Limitation Circular
GM	Guidance Material
GPS	Global Positioning System
(H)	Helicopter
HEMS	Helicopter Emergency Medical Service
HHO	Helicopter Hoist Operation
HT	Head of Training
ICAO	International Civil Aviation Organization
IEM	Interpretative and Explanatory Material
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IMC	Instrument Meteorological Conditions
IOS	Instructor Operation Station
IR	Instrument Rating
IRE	Instrument Rating Examiner
IRI	Instrument Rating Instructor
LDP	Landing Decision Point
LIFUS	Line Flying Under Supervision
LOFT	Line Orientated Flight Training
LVO	Low Visibility Operation
MCC	Multi-Crew Cooperation
MCDU	Multifunction Control Display Unit
ME	Multi- engine
MEL	Minimum Equipment List
MMEL	Master Minimum Equipment List
MPH	Multi-Pilot Helicopter
MPL	Multi Pilot License
NCL	Narrow Check List
Nm	Nautical Miles
NVIS	Night vision imaging system
OGE	Out of Ground Effect
OM	Operations Manual

OMM	Organization's Management Manual
OPC	Operator proficiency check
ORA	Organization requirements for aircrew
ORO	Organization Requirements For Air Operations
OSD	Operational suitability data
OTD	Other training device
Part-ARA	1178/2011 Commission Regulation Appendix-6
Part-FCL	1178/2011 Commission Regulation Appendix-1
Part-MED	1178/2011 Commission Regulation Appendix-4
Part-ORA	1178/2011 Commission Regulation Appendix-7
Part-21	748/2012 Commission Regulation Appendix -1
PF	Pilot Flying
PFC	Preflight Checks
PIC	Pilot In Command
PICUS	Pilot In Command Under Supervision
PNF / PM	Pilot Not Flying / Pilot Monitoring
PPL	Private Pilot License
PSC	Post Shutdown Checks
QRH	Quick Reference Handbook
ROD	Rate of Descent
R/T	Radiotelephony
SCAS	Stability Control Augmentation System
SE	Single- Engine
SFI/SFE	Synthetic Flight Instructor /Synthetic Flight Examiner
SIM	Simulator
SMM	Safety Management Manual
SOP	Standard Operating Procedure
SPA	Single-Pilot Aeroplane
SPH	Single-Pilot Helicopter
SPIC	Student Pilot In Command
STD	Synthetic Training Devices
SHT-FCL	Flight Crew Licensing Directive
SHT-ORA	DGCA Directive Organization Requirements of Aircrew
TAWS	Terrain awareness warning system
TCAS	Traffic Alert And Collision Avoidance System
TDP	Take-off Decision Point
TKT	Theoretical Knowledge Training
TKI	Theoretical Knowledge Instructor
TR	Type Rating
TRE	Type Rating Examiner
TRI	Type Rating Instructor
TRM	Training Manual
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions
ZFTT	Zero Flight Time Training

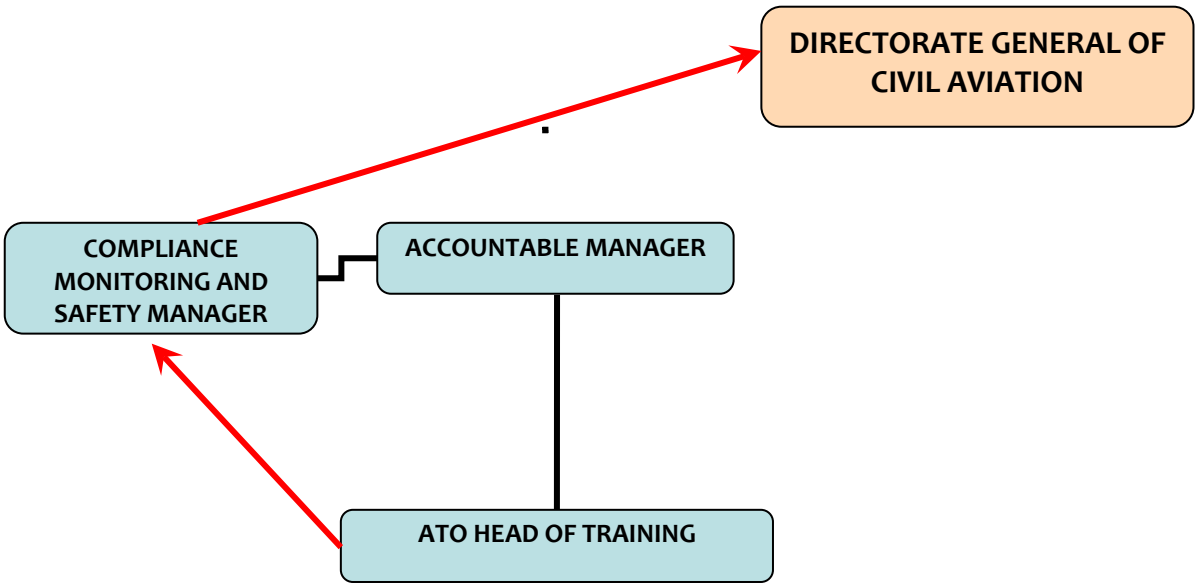
0.6 PAGE DESIGN / CHANGE ORGANIZATION / DISTRIBUTION LIST

0.6.1 Page Design

KAAN Approved Training Organization Operation Manual page design is as follows:



0.6.2 Organizing the Changes



a. Head of Training is responsible to make the related changes to keep updated the Operation Manual according to current directives, regulations and laws.
b. The mentioned changes are sent to Directorate General of Civil Aviation by Compliance Monitoring and Safety Manager after reviewing.
c. Changes are officially valid after the approval by Directorate General of Civil Aviation.
d. Changes are recorded to 0.2 Revision List.
e. Current Pages are shown for the users' attention at item 0.3.
f. The updated part is shown with a vertical line on the page.

0.6.3 Distribution List

a. Directorate General of Civil Aviation (Original and Digital Copy)
b. Accountable Manger (Digital Copy)
c. ATO Head of Training (Digital Copy)
d. Compliance Monitoring and Safety Manager (Digital Copy)
e. Technical Manager (Digital Copy)
f. Digital Library

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1.1 OPERATION MANUAL (ORA.ATO.130, AMC1 ORA.ATO.230(b))

a. KAAN Approved Training Organization Operation Manual, is prepared based on;
   - SHT-ORA ATO privileges and,
   - SHT-FCL Class and Type ratings.

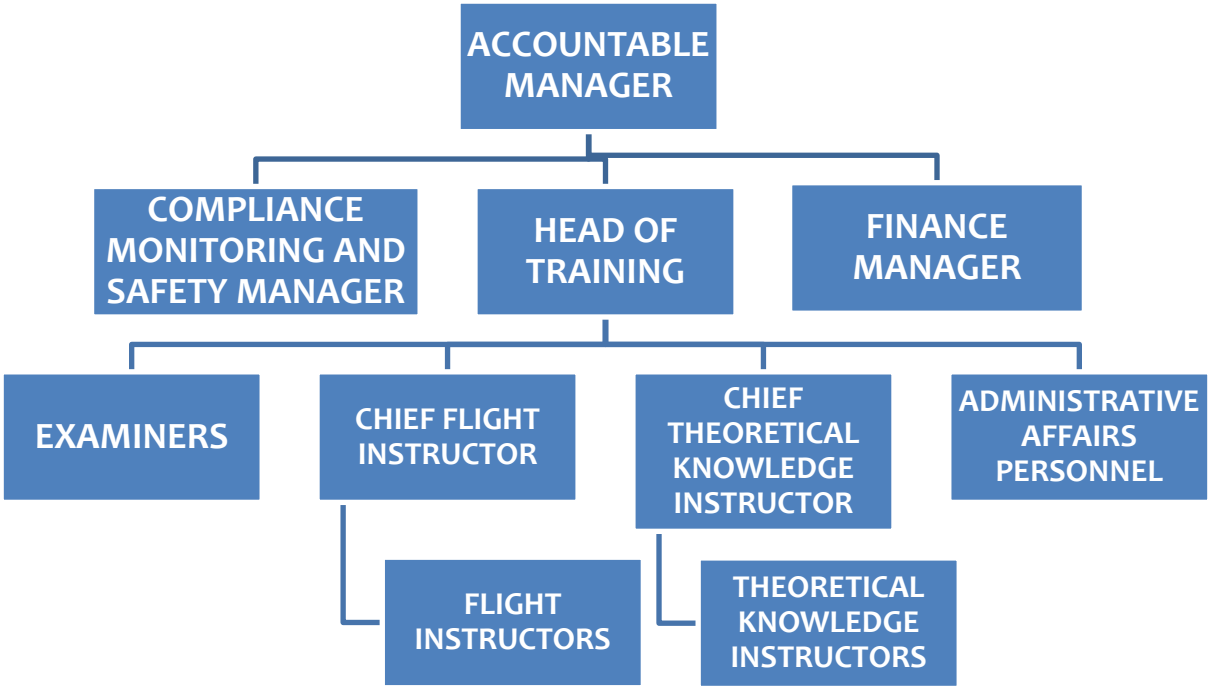
b. The following sources were also used while preparing the manual.
   - EASA FCL PART ORA AMC1 ORA.ATO.230(b)
   - SHT-FTL/HG Flight and Duty Period Limitation for Air Taxi and General Aviation Operators Directive

c. This Manual is written in English language.
d. This Manual is the basics of KAAN Approved Training Organization Operational procedures.
e. Directorate General of Civil Aviation keeps a copy of this Manual, and all the updates are sent by KAAN AIR.
f. This manual comprises of 5 sections:

   - Section 0 Introduction
   - Section 1 General
   - Section 2 Technical
   - Section 3 Route
   - Section 4 Personnel Training

g. KAAN ATO will establish each mandatory safety measure dictated by the Authority as per ARA.GEN.135(c) and,
h. Mandatory safety measures including Airworthiness Directives (AD) issued by EASA.
i. Occurrence Reporting: ORA.GEN.160
   1) KAAN ATO shall report to the competent authority, and to any other organization required by the State of the operator to be informed, any accident, serious incident and occurrence as defined in Regulation (EU) No 996/2010 of the European Parliament and of the Council1 and Directive 2003/42/EC of the European Parliament and of the Council.
   2) KAAN ATO; without prejudice to paragraph (a) shall report to the competent authority and to the organization responsible for the design of the aircraft any incident, malfunction, technical defect, exceeding of technical limitations and any occurrence that would highlight inaccurate, incomplete or ambiguous information contained in the operational suitability data established in accordance with Commission Regulation (EU) No 748/2012 or other irregular circumstance that has or may have endangered the safe operation of the aircraft and that has not resulted in an accident or serious incident.
   3) Without prejudice to Regulation (EU) No 996/2010, Directive 2003/42/EC, Commission Regulation (EC) No 1321/20074 and Commission Regulation (EC) No 1330/20075, the reports referred in paragraphs (a) and (b) shall be made in a form and manner established by the competent authority and contain all pertinent information about the condition known to the organization.
   4) Reports shall be made as soon as practicable, but in any case, within 72 hours of the organization identifying the condition to which the report relates, unless exceptional circumstances prevent this.
   5) Where relevant, the organization shall produce a follow-up report to provide details of actions it intends to take to prevent similar occurrences in the future, as soon as these actions have been identified. This report shall be produced in a form and manner established by the competent authority.
j. Safety Risk Management, Compliance Monitoring, Audit Procedures are defined in Compliance Monitoring Manual.

1.2 TRAINING ORGANISATION (KAAN ATO) ADMINISTRATION (FUNCTION AND MANAGEMENT) (SCHEMA) (ORA.GEN.200, SHY-1)



1.2.1 KAAN ATO MANAGEMENT SYSTEM INCLUDES:

1. Clearly defined lines of responsibility and accountability throughout the organization, including a direct safety accountability of the accountable manager;

2. A description of the overall philosophies and principles of the organization with regard to safety, referred to as the safety policy;

3. The identification of aviation safety hazards entailed by the activities of the organization, their evaluation and the management of associated risks, including taking actions to mitigate the risk and verify their effectiveness;

4. Maintaining personnel trained and competent to perform their tasks;

5. Documentation of all management system key processes, including a process for making personnel aware of their responsibilities and the procedure for amending this documentation;

6. A function to monitor compliance of the organization with the relevant requirements. Compliance monitoring shall include a feedback system of findings to the accountable manager to ensure effective implementation of corrective actions as necessary; and

7. any additional requirements that are prescribed in the relevant subparts of this Part or other applicable Parts.

8. KAAN ATO management system shall correspond to the size of the organization and the nature and complexity of its activities, taking into account the hazards and associated risks inherent in these activities.

9. KAAN AIR ATO will notify the DGCA of a resigning managerial staff within a maximum of 15 days and submit the new managerial staff to be appointed to replace a resigned managerial staff to the approval of the General Directorate within a maximum of 45 days. If KAAN ATO cannot appoint within the 45-day period, it may request additional time by notifying the DGCA of its reasonable reasons, and if the DGCA sees the request on the spot, it will give a maximum of 45 days, starting from the end of the period. Otherwise, the authority of KAAN AIR ATO is suspended until the management personnel is completed, and if it is not completed within 3 months, it is canceled.

10. In the event that the certificate of any of the responsible managerial personnel is canceled by the DGCA for the first time, this manager cannot serve as managerial personnel in KAAN AIR ATO for at least 3 (three) years, or indefinitely in case of a second cancellation.

1.2.2 Contracted Activities (ORA.GEN.205)

Contracted activities include all activities within the organization's scope of approval that are performed by another organization either itself certified to carry out such activity or if not certified, working under the contracting organization's approval. KAAN ATO shall ensure that when contracting or purchasing any part of its activity, the contracted or purchased service or product conforms to the applicable requirements.

When the certified organization contracts any part of its activity to an organization that is not itself certified in accordance with this Part to carry out such activity, the contracted organization shall work under the approval of the contracting organization. The contracting organization shall ensure that the competent authority is given access to the contracted organization, to determine continued compliance with the applicable requirements.

1.3 RESPONSIBILITES AND PROPERTIES (ALL MANAGEMENT AND ADMINISTRATIVE PERSONNEL)

1.3.1 TEACHING AND TRAINING PERSONNEL (ORA.ATO.110, ORA.GEN.210)

KAAN ATO management, training, and teaching personnel; is being tracked by KAAN Form No: TOL-01 ATO Personnel List. Any change in the list is sent officially to DGCA as quick as possible with a validity date.

a) KAAN ATO shall appoint an accountable manager, who has the authority for ensuring that all activities can be financed and carried out in accordance with the applicable requirements. The accountable manager shall be responsible for establishing and maintaining an effective management system.
b) A person or group of persons shall be nominated by the organization, with the responsibility of ensuring that the organization remains in compliance with the applicable requirements. Such person(s) shall be ultimately responsible to the accountable manager.
c) KAAN ATO shall have sufficient qualified personnel for the planned tasks and activities to be performed in accordance with the applicable requirements.
d) KAAN ATO shall maintain appropriate experience, qualification and training records to show compliance with paragraph (c).
e) The organization shall ensure that all personnel are aware of the rules and procedures relevant to the exercise of their duties

1.3.1.1 ACCOUNTABLE MANAGER

Responsibilities

- **a.** The accountable manager shall be responsible for establishing and maintaining an effective management system.
- **b.** He/She oversees the safe execution of training activities in accordance with applicable laws, regulations and instructions.
- **c.** Has the authority for ensuring that all activities can be financed and carried out in accordance with the applicable requirements.
- **d.** Monitors the planning and execution of maintenance.
- **e.** Monitors and makes reporting of Compliance Monitoring policy.

1.3.1.2 COMPLIANCE MONITORING AND SAFETY MANAGER

Responsibilities:

The Compliance Manager is responsible to the Accountable Manager for monitoring the flight and ground trainings in KAAN ATO, including the supporting activities, are established according to the applicable Directorate General of Civil Aviation standards.

a. To carry out activities in order to ensure that the aircraft registered in the Company can operate in a safe manner; and to supervise and audit whether all the operations are being implemented in accordance with the rules,
b. To examine and audit all the departments in the company and report to the Accountable Manager.
c. To ensure that the Compliance Monitoring program is properly implemented, maintained and continually reviewed and improved.
d. The compliance monitoring manager has direct access to Accountable Manager. Also he/she authorized to
    1. Access to all parts of the organization, and as necessary, any contracted organization,
    2. Post independent compliance monitoring auditors,
    3. Send reports directly to Accountable Manager and Directorate General of Civil Aviation.
e. To aim zero flight accident and support Company management.

Properties:

Personnel responsible for Compliance Monitoring shall have knowledge about:

a. The purpose of Compliance Monitoring system,
b. Compliance Monitoring management,
c. Aim of Compliance Monitoring assurance,
d. Audit technics,
e. Reports and logs,
f. The process of Compliance Monitoring system in ATOs.

1.3.1.3 HEAD OF TRAINING (ORA.ATO.110)

Responsibilities:

The Head of Training shall be responsible for the adequate integration of flight and ground trainings and to monitor the individual progress of the candidates; and responsible to the General Directorate of Civil Aviation for KAAN ATO is fulfilling the obligations under this instruction. As an instructor, he / she will have extensive experience and strong management skills for the training given by ATO. He/She will,

1. Monitor the training provided is compliant with SHT-FCL and if this training is a test flight training, compliant with the relevant requirements of SHT-21 and preparing the training program,
2. Provide a successful combination of training of aircraft and flight simulator (FSTD) and theoretical knowledge training,
3. Follow the personal progress of the students.

Properties:
Head of Training should have the following properties,

a. Should hold or have held in the 3 years prior to first appointment as HT, a professional pilot license and associated ratings or certificates issued in accordance with SHT-FCL, related to the flight training courses provided,
b. Should have knowledge about national and international flight training regulations,
c. Should have administrative experience,
d. Should have an exemplary personality with his/her knowledge and behavior.

1.3.1.4 CHIEF FLIGHT INSTRUCTOR (CFI)

Responsibilities:
Shall be responsible to the Head of Training for the supervision of flight and flight simulation training instructors and for the standardization of all flight instruction and flight simulation instruction. The CFI shall hold the highest

professional pilot license and associated ratings related to the flight training courses conducted and hold an instructor certificate with the privilege to instruct for at least one of the training courses provided.

1.3.1.5 TYPE RATING INSTRUCTORS (TRI)

Responsibilities:

He/She is responsible to Chief Flight Instructor for the personal progress of candidates and adequate integration of flight and ground trainings provided to candidates according to Authority standards, directives and KAAN ATO own regulations.

Properties:

All Type Rating Instructors shall have the following properties:

a. Hold a CPL (H),
b. Hold an Instrument Rating,
c. Having at least 15 hours at the type of helicopter he will provide training,
d. Fulfills the requirements of SHT-FCL Sub Part J and Part 4,
e. Having Type Rating Instructor (TRI) training,
f. At least 1000 hours of experience as Captain.

1.3.1.6 CHIEF THEORETICAL KNOWLEDGE INSTRUCTOR (CTKI)

Responsibilities:

He/She shall be responsible to Head of Training for the supervision of all theoretical knowledge instructors and for the standardization of all theoretical knowledge instruction. The CTKI shall have extensive experience as a theoretical knowledge instructor in the areas relevant for the training provided by the ATO.

1.3.1.7 THEORETICAL KNOWLEDGE INSTRUCTORS (TKI)

Responsibilities:

All theoretical knowledge instructors are responsible to the Chief Theoretical Knowledge Instructor for monitoring the personal progress of the candidates and for taking the necessary measures for their development.

Properties:
Theoretical knowledge instructors shall have:

a. Practical background in aviation in the areas relevant for the training provided and have undergone a course of training in instructional techniques; or
b. Previous experience in giving theoretical knowledge instruction and an appropriate theoretical background in the subject on which they will provide theoretical knowledge instruction.

1.3.1.8 EXAMINERS

Examiners are responsible to conduct skill test, proficiency check and theoretical knowledge exams of the pilots in the scope of SHT-FCL Appendix 1.9c who have finished the trainings those KAAN ATO is competent to provide as being authorized by Directorate General of Civil Aviation.

Holders of an examiner certificate shall:

(1) Hold an equivalent license, rating or certificate to the ones for which they are authorized to conduct skill tests, proficiency checks or assessments of competence and the privilege to instruct for them;

(2) Be qualified to act as PIC on the aircraft during a skill test, proficiency check or assessment of competence when conducted on the aircraft.

(3) Have not been subject to any sanctions, including the suspension, limitation or revocation of any of their licenses, ratings or certificates issued in accordance with this Manual, for non-compliance with the EASA Basic Regulation and its Implementing Rules during the last 3 years.

(4) When evaluating the applicant's background, the competent authority should evaluate the personality and character of the applicant, and his/her cooperation with the competent authority.

1.3.1.9 ADMINISTRATIVE AFFAIRS PERSONNEL

Responsibilities:

Provides coordination between Compliance Monitoring and Training department. For this purpose he makes observations and inform the related personnel about his/her observations. Provides the compatibility of Training and certification basis to Civil Aviation regulations, SHT-FCL and SHT-OPS. He/she is responsible to Head of Training.

Properties:

Administrative Affairs personnel shall,

a. Be a graduate of at least High School,
b. Shall have adequate knowledge and skills about the subject he/she is assigned.

1.3.1.10 INSTRUCTOR / EXAMINER ASSIGNMENT PROCEDURES

Assignment of instructor/examiner **pilots other than KAAN ATO** in the training and/or check / skill test flights to be carried out, in agreement with TR DGCA.

It can be done in coordination and in accordance with the following rules:

a. The said type training and/or check / skill test flight may be carried out with an aircraft in the operation where the pilot to be trained or employed. In this case, **insurance requirements** will be provided by KAAN ATO to cover the training and/or check / skill test flight.
b. The requirements in accordance with the legislation will be fulfilled by KAAN ATO; in case of a possible **occurrence/accident**,
c. Assigned flight instructor/examiner; will meet the **legislative requirements** of the aircraft type he/she will conduct the training and/or check / skill test flights,
d. **Operational, Airworthiness and Insurance responsibilities** will be on/with KAAN ATO and by creating a training program on KAAN ATO operating procedures (including Operation and Training Manual), the flight instructor/examiner will **receive this training before the training** and/or check / skill test flights. If the training is taken for the first time; it will be applied as 2 hours, and for renewals over a year, it will be applied as 1 hour.

1.4 STUDENT DISCIPLINE AND DISCIPLINARY ACTIONS

- Students have to pay attention to their personal life, including personal nutrition, recreation and so on.
- Because of the positive effect of the continuity of education on the performance, maximum effort will be made to fly every day as much as possible.
- It will be emphasized that all the rules about the flight are prepared with great care and that mistakes can sometimes not be compensated and can be paid with human life.
- All personnel shall give extensive care to conduct the flight and theoretical trainings in accordance with Operation and Training Manuals.
- The flight personnel shall carry out the flight operation in accordance with the relevant manual and company directives. All Approved Training Organization personnel shall make maximum efforts to ensure that the discipline is established.
- KAAN Approved Training Organization (ATO) has the right to interrupt the course if students insist on disciplining behavior.
- In accordance with the SHT-APAM Alcohol and Psychoactive Substance Controls Instruction, at least 10% of the personnel shall be tested per calendar year.

1.5 APPROVAL OR AUTHORIZATION OF FLIGHT

- Training flights are planned by Head of Training.
- Head of Training sends the flight planning to Accountable Manager one day before the scheduled flight.
- The helicopter is assigned to flight by the Maintenance Manager in accordance with the directive of Accountable Manager.
- Students; prepare the helicopter for the flight under the control of the flight instructor in coordination with flight planning department.

1.6 PREPARATION OF FLYING PROGRAM (ORA.ATO.125)

a. Head of Training is responsible for the preparation and execution of the flight program.
b. Flight training shall be conducted in accordance with Training Manual Part 1 (Training Plan).
c. Head of Training may make any changes in order to keep the integration of ground and flight training subjects when meteorological and maintenance limitations are encountered while monitoring the flight program.
d. Each course type shall have a training program.
e. Training program shall be in compliance with the relevant requirements of SHT-FCL, and SHT-21 if the training is flight test training.

1.7 COMMAND OF AIRCRAFT

a. Flight instructor is the Commander during training flights.
b. Flight instructor is to give the final decision to safely continue the training flight as responsible pilot.
c. Every occupant in the helicopter shall follow the directives of instructor pilot.
d. KAAN ATO shall use the aircraft in the fleet and the FSTD in accordance with the training courses.

1.8 RESPONSIBILITES OF PILOT IN COMMAND (PIC)

a. Carries out the training in the standards and safety within the program.
b. Participates briefings and de-briefings.
c. Monitors the daily flight program.
d. Participates and monitors the ground training within the program.
e. Records daily logs about the trainings he had.
f. Conducts briefing and de-briefing with his instructor.
g. Follows the instructor's instructions during the flight and keeps being within the limits of aircraft.
h. Handovers the control of the aircraft to the instructor during real emergencies.
i. Monitors continuously the traffic outside.
j. Controls the aircraft flight preparation.
k. Should have a regular way of life during the course.
l. Does not use alcohol and drugs.
m. In training flights, instructors and examiners fly as PICs.

1.9 CARRIAGE OF PASSENGERS (FCL.060, AMC1 FCL.060(b)(1), GM1 FCL.060(b)(1))

A pilot shall not operate an aircraft in commercial air transport or carrying passengers as PIC or co-pilot unless he/she has carried out, in the preceding 90 days, at least 3 takeoffs, approaches and landings in an aircraft of the same type or class or an FFS representing that type or class. When a pilot needs to carry out one or more flights with an instructor or an examiner to comply with this requirement the instructor or examiner on board those flights will not be considered as a passenger. As KAAN ATO, we **do not carry passengers** on our **training flights.**

1.10 AIRCRAFT DOCUMENTATION

(a) The following documents, manuals and information shall be carried on each flight, as originals or copies unless otherwise specified:

(1) **Rotorcraft Flight Manual (RFM)** or equivalent document(s), and/or **Quick Reference Handbooks (QRH)** by manufacturer / **Short Check Lists (NCL/CL)** produced by KAAN AIR for related type,

(2) The original certificate of registration;
(3) The original certificate of airworthiness (C of A);
(4) The noise certificate, including an English translation;
(5) A certified true copy of the air operator certificate (AOC) **by DGCA or Notary**;
(6) The operations specifications relevant to the aircraft type, issued with the AOC;
(7) The original aircraft radio license,
(8) The third party liability insurance certificate(s);

(9) The journey log, or equivalent, for the aircraft;
(10) The aircraft **technical log**, in accordance with Appendix I (Part-M);
(11) Details of the filed ATS flight plan;
(12) Current and suitable **aeronautical charts** for the route of the proposed flight and all routes along which it is reasonable to expect that the flight may be diverted;
(13) Procedures and visual signals information for use by **intercepting** and intercepted aircraft;
(14) Information concerning **search and rescue services** for the area of the intended flight, which shall be easily accessible in the flight crew compartment;
(15) The current parts of the operations manual and/or SOP or RFM that are relevant to the duties of the crew members and task specialists, which shall be easily accessible to the crew members;
(16) The **MEL**;
(17) Appropriate notices to airmen (**NOTAMs**) and aeronautical information service (AIS) briefing documentation;
(18) Appropriate **meteorological** information;
(19) Cargo and/or passenger manifests, if applicable;
(20) **Mass and balance** documentation;
(21) Operational Flight Plan, if applicable;
(22) Notification of special categories of passenger (SCPs) and special loads, if applicable; and
(23) any other documentation that may be pertinent to the flight or is required by the States concerned (origin, transit, overflight and destination of the flight) with the flight. It may include, for example, forms to comply with reporting requirements.

(b) Notwithstanding (a), in case of loss or theft of documents specified in (a)(2) to (a)(8), the operation may continue until the flight reaches its destination or a place where replacement documents can be provided

(c) The documents, manuals and information may be available in a form other than on printed paper. Accessibility, usability and reliability should be assured.
(d) All documents shall be controlled by the Captain before the flights. Flight crew shall keep flight and medical licenses next to them.

1.11 RETENTION OF DOCUMENTS (ORA.GEN.220, AMC1 ORA.GEN.220(b), ORA.ATO.120, AMC1 ORA.ATO.120(a);(b), ORA.FSTD.240, AMC1 ORA.FSTD.240)

All records shall be stored in a manner that ensures protection from **damage, alteration, and theft.**

(a) All records are accessible whenever needed within a reasonable time. These records shall be organized in a way that ensures **traceability and retrievability** throughout the required retention period.

(b) Records shall be kept in **paper form** or in **electronic format** or a combination of both. The records shall remain legible throughout the required retention period. The retention period starts when the record has been created or last amended.

(c) **Paper systems** shall use robust material which can withstand normal handling and filing. **Computer systems** shall have at least one **backup system** which shall be updated within 24 hours of any new entry. Computer systems shall include **safeguards against the ability of unauthorised personnel to alter the data.**

(d) All computer hardware used to ensure data backup shall be stored in a different location from that containing the working data and in an environment that ensures they remain in good condition. When hardware or software changes take place, special care shall be taken that all necessary data continues to be accessible at least through the full period. In the absence of such indication, all records shall be kept for a **minimum period of 5 (five) years.**

The following records shall be kept **throughout the courses** and for a period of **3 (three) years** after the completion of the training :

DOCUMENT	DURATION
(a) details of ground, flight, and simulated flight training given to individual students,	3 Years
(b) detailed and regular progress reports from instructors including assessments, and regular progress flight tests and ground examinations; and	
(c) information on the licenses and associated ratings and certificates of the students, including the expiry dates of medical certificates and ratings.	

The details of ground, flight, and flight instruction **by using FSTD** given to a specific individual student and the detailed progress reports from instructors may be kept also in a **student's progress card**. This progress card shall contain all the exercises of the training syllabus. The instructor shall sign this card if a certain exercise has been completed or a specific assessment has been conducted.

The **holder** of an **FSTD qualification certificate** shall keep records of:

(a) all documents describing and proving the initial qualification basis and level of the FSTD for the duration of the **FSTD's lifetime**; and

(b) any recurrent documents and reports related to each FSTD and to Compliance Monitoring activities for a period of **at least 5 years.**

Record keeping duration of the other documents are as follows:

DOCUMENT	DURATION
Operational Flight Plan (OFP)	3 months
NOTAMs	
Mass and Balance Documents	
Reports belonging to exceedance or Flight and Duty Periods	24 months
Flight, Duty and Rest Periods	
Helicopter Technical Log	36 months after last entry
Accident/Incident/Occurrence Reports	At least 5 years
Mishap Reports	Unlimited
Licenses	During the Crew is employed

1.12 FLIGHT CREW QUALIFICATION RECORDS (LICENSE AND RATINGS)

Flight crew records are kept at the training facility. Head of Training is responsible for updating the records and revalidation of the privileges before expiring in accordance with the regulations.

Each training personnel working in KAAN ATO shall have a file and the content is as follows:

1) Personal Information
   - ID and other information
   - Address and Phone number
   - Declaration of Employment Contract
2) Copy of valid license
3) Copy of valid medical certificate
4) Authorization
5) Form-4 approved by DGCA, if applicable
6) Training Certificates, Participation Document for Refresh Training
7) Records of Flight Duty and Rest periods
8) If the foreign pilot is employed, the applicable work permit and the foreign pilot operation authorization certificate

The new trainings are added to training records. Personnel other than DGCA authorized officials and Head of Training is subject to special permission to reach the records.

1.13 REVALIDATION AND RENEWAL (MEDICAL CERTIFICATE AND RATINGS)

1.13.1 Renewal of Privileges

- Type Rating Instructors (TRI/H) in KAAN ATO are personally responsible for the revalidation of their privileges.
- Head of Training monitors the validation period of the privileges of instructors and makes the planning and coordination to revalidate.
- Revalidation of the privileges of Type Rating Instructors (TRI/H) are made in accordance with ATO Training Manual 1.6.1.2.1 and 1.6.1.3.1 (Instructor Refresher Training) and 4.5.2 section of this Manual.

1.13.2 Revalidation and Renewal of Type Rating (TR)

a. The period of validity of class and type ratings shall be 1 year. After revalidation the privileges begin from the expiry date of the rating.

b. For revalidation of type ratings, the applicant shall:

1) Pass a proficiency check in the relevant type of helicopter or an FSTD representing that type within the 3 months immediately preceding the expiry date of the rating; and,

2) complete at least 2 hours as a pilot of the relevant helicopter type within the validity period of the rating.

e. For renewal of type ratings, the applicant shall:

1) Have a refresher training,

2) Pass a Proficiency check successfully.

d. Type rating is valid by the date of renewal.

1.13.3 Revalidation and Renewal of Instrument Rating (IR) (FCL.625)

(a) Validity: Instrument rating (IR) is valid for 1 year.
(b) Revalidation:

(1) IR is revalidated within the 3 months immediately preceding the expiry date of the rating,

(2) Applicants who fail to pass the relevant section of an IR proficiency check before the expiry date of the IR shall not exercise the IR privileges until they have passed the proficiency check.
(c) Renewal: If an IR has expired, in order to renew their privileges applicants shall:

(1) Go through refresher training at an ATO to reach the level of proficiency needed to pass the instrument element of the skill test in accordance with SHT-FCL Appendix 1.9.

(2) Complete a proficiency check in accordance with SHT-FCL Appendix 1.9, in the relevant aircraft category.
(d) If the IR has not been revalidated or renewed within the preceding 7 years, the holder will be required to pass again the IR theoretical knowledge examination and skill test.

1.13.4 Revalidation and Renewal of Type Rating Instructor (TRI) Privileges (FCL.940.TRI)

(a) *Revalidation*

(1) Helicopters. For revalidation of a TRI (H) certificate, the applicant shall, within the validity period of the TRI certificate, fulfil 2 of the following 3 requirements:

(i) Complete 50 hours of flight instruction on each of the types of aircraft for which instructional privileges are held or in an FSTD representing those types, of which at least 15 hours shall be within the 12 months preceding the expiry date of the TRI certificate. In the case of TRI(PL), these hours of flight instruction shall be flown as a TRI or type rating examiner (TRE), or SFI or synthetic flight examiner (SFE). In the case of TRI(H), time flown as FI, instrument rating instructor (IRI), synthetic training instructor (STI) or as any kind of examiner shall also be relevant for this purpose;

(ii) receive **instructor refresher training** as a TRI at an ATO;

(iii) pass the **assessment of competence** in accordance with FCL.935.

(2) For at least each alternate revalidation of a TRI certificate, the holder shall have to pass the assessment of competence in accordance with FCL.935.

(3) If a person holds a TRI certificate on more than one type of aircraft within the same category, the assessment of competence taken on one of those types shall revalidate the TRI certificate for the other types held within the same category of aircraft.

(4) Specific requirements for revalidation of a TRI(H). A TRI(H) holding an FI(H) certificate on the relevant type shall have full credit towards the requirements in (a) above. In this case, the TRI(H) certificate will be valid until the expiry date of the FI(H) certificate.

(b) *Renewal*

(1) Helicopters. If the TRI (H) or TRI(PL) certificate has lapsed, the applicant shall, within a period of 12 months before renewal:

(i) **receive instructor refresher training** as a TRI at an ATO, which should cover the relevant elements of the TRI training course; and

(ii) pass the **assessment of competence** in accordance with FCL.935 in **each of the types** of aircraft in which renewal of the instructional privileges is sought.

1.13.5 Revalidation and Renewal of Examiner (TRE/H) Privileges (FCL.1025)

(a) Validity period: An examiner certificate shall be valid for 3 years.
(b) Revalidation: An examiner certificate shall be revalidated when the holder has, during the validity period of the certificate:

(1) conducted **at least 2 skill tests**, proficiency checks or assessments of competence **every year**;

(2) attended, during the **last year** of the validity period, an **examiner refresher course** which is provided by the competent authority, or which is provided by an ATO and approved by the competent authority.

(3) **One** of the skill tests or proficiency checks completed during the last year of the validity period in accordance with (1) shall have been assessed by an inspector from DGCA or by a senior examiner specifically authorized to do so by DGCA responsible for the examiner's certificate.

(4) When the applicant for the revalidation holds privileges for more than one category of examiner, **combined revalidation of all examiner privileges** may be achieved when the applicant complies with the requirements in (b)(1) and (2) and FCL.1020 for one of the categories of examiner certificate held, in agreement with the competent authority.

(c) Renewal: If the certificate has expired, applicants shall comply with the requirements of (b)(2) and FCL.1020 before they can resume the exercise of the privileges.
(d) An examiner certificate shall only be revalidated or renewed if the applicant demonstrates continued compliance with the requirements in FCL.1010 and FCL.1030.

If the examiners lose any one of the required conditions or if the authorization is terminated or not revalidated by DGCA; the examiner privileges shall be terminated. Re-application and approval are required to regain

privileges. In the case of application, it is subject to a proficiency test by the senior examiners who have been approved by our own institution or otherwise from the sector.

1.13.6 Renewal of Medical Certificates

a. Type Rating Instructors (TRI/H) in KAAN ATO are personally responsible for the renewal of their medical certificates.
b. Head of Training monitors the validation period of the medical certificates of instructors and makes the planning and coordination to renew.
c. Instructors shall have Class 1 Medical Certificate.
d. Medical Certificates are obtained from authorized AeMC.

1.14 (TRI/H), (TRE/H) Flight Duty and Flight Time Limitations (SHT-FTL/HG)

The regulations regarding Flight Duty period and Flight Time limitations are shown in Appendix-5 of Training Manual.

	DAILY	7 DAYS	14 DAYS	28 DAYS	ANNUAL
MAX DUTY TIME	-	60 Hrs.	110 Hrs.	190 Hrs.	2000 Hrs.
MAX FLIGHT DUTY PERIOD	12 Hrs.	-	-	-	-
MAX FLIGHT TIME	6 Hrs.	30 Hrs.	-	90 Hrs.	1000 Hrs.

1.15 Flight Duty and Flight Time Limitations for Students (SHT-FTL/HG)

	DAILY	7 DAYS	14 DAYS	28 DAYS
MAX DUTY PERIOD	-	60 Hrs.	110 Hrs.	190 Hrs.
MAX FLIGHT DUTY PERIOD	12 Hrs.	-	-	-
MAXIMUM CPL, IR, CLASS/ TYPE, SYNTETIC FLIGHT TIME	4 Hrs. (Note 2)	30 Hrs.	-	90 Hrs.
MAX THEORETICAL TRAINING TIME	8 Hrs. (Note 2)	40 Hrs.	-	-

Note-1: One flight training period is max 02:00 hrs. and daily flight training period quantity shall be max 2.

Note-2: In case of flight/simulator and theoretical training on the same day, half of the DAILY Maximum flight times specified in the table above are applied. However, the total of flight/simulator and theoretical training cannot exceed 8 hours in one day.

1.16 (TRI/H), (TRE/H) Rest Periods (SHT-FTL/HG)

- Daily rest period; the same as previous duty period or 12 hours (10 Hours for out of main base); whichever is longer,
- At least 1 off day after 6 consecutive days,
- At least 7 local days within each calendar month and,
- At least 96 local days within each calendar year.
- Off days are given in proportion to the number of working days, distributed evenly in the month and two halves of the month; 7 local days within a calendar month are grouped as 2+2+1+1+1.
- Duty and training shall not be planned by interrupting the rest periods.

1.17 Student Rest Periods (SHT-FTL/HG)

- For the students, daily rest period; the same as previous duty period or 12 hours (10 Hours for out of main base); whichever is longer,
- At least 1 off day after 6 consecutive days,
- At least 7 local days within each calendar month and,
- At least 96 local days within each calendar year.
- Off days are given in proportion to the number of working days, distributed evenly in the month and two halves of the month; 7 local days within a calendar month are grouped as 2+2+1+1+1.
- Duty and training shall not be planned by interrupting the rest periods.
- Minimum rest period shall be 00:30 hours between the periods when two periods of flight training are performed for the students.

1.18 PILOTS' LOGBOOKs

- The regulations in FCL.050, AMC1 FCL.050 shall be the basis when filling the Logbooks.
- Logbooks shall be in the format which is accepted by DGCA.
- Records into the Logbook shall be filled in with a pen and immediately after the flight.
- Instructors shall record their flights as both Pilot in Command and Instructor in the Logbook.
- Students shall record their flights as dual; however these records shall be approved by using Remarks and Endorsement section.

1.19 FLIGHT PLANNING (GENERAL)

a. Training flights are planned by the Head of Training.
b. Head of Training sends the flight planning to Accountable Manager for approval one day before the scheduled flight.
c. After the approval the helicopter is assigned to flight by the Maintenance Manager in accordance with the directive of Accountable Manager.
d. Students; prepare the helicopter for the flight under the control of the flight instructor in coordination with flight planning department.
e. Student flights are planned on a everyday basis as much as possible for taking into consideration of the precautions to maintain the student performance.
f. While monitoring the flight planning, Head of Training makes the necessary changes for maintaining the ground and flight training subjects' integration when encountered with meteorology and maintenance limitations.
g. Changes are valid by the approval of Accountable Manager.
h. Suitable aerodromes and operational sites shall be used during the trainings depending on the type/types of aircraft and sort of operation/operations. CAT.OP.MPA.105, AMC1 CAT.OP.MPA.105, AMC2 CAT.OP.MPA.105, SPO.OP.100

1.20 FLIGHT SAFETY (GENERAL)

1.20.1 General Requirements

a. Flight safety is the first priority subject for all the personnel in KAAN ATO.
b. ATO is a part of KAAN AIR for carrying out the flight safety activities and taking necessary measures.
c. In this manner, KAAN Compliance Monitoring and Safety Manager carries out the flight safety activities in ATO in accordance with KAAN Safety Management System Manual.
d. Head of Training is continuously in relation and coordination with Compliance Monitoring and Safety Manager.

1.20.2 Flight Safety Measures

a. Instructor pilots and candidates shall not fly when the medical license validity expires, alcohol or drug is used, get report as a result of any kind of illness and/or medicine treatment under the control of a doctor.
b. No alcohol should be consumed less than 8 hours prior to the specified reporting time for a flight duty period, 72 hours is a suitable minimum length of time to allow after normal blood donation before returning to flying duties and 24 hours after vaccination.
c. The radio in the aircraft shall not be off even for the purpose of exercise during flight training activity.
d. The course program, duration, flight and ground training sessions shall not be shortened.
e. All the procedures related with flight preparation of helicopters, engine run-up, sending helicopter to flight and meeting helicopters after the flight shall be well known by all personnel.
f. Instructors shall monitor air traffic communications carefully on the radio besides the cockpit communication during the flight training. By the way he/she will be aware of the other traffics' intention and location. This matter is especially important during limited meteorological conditions.
g. The previous aircraft mishap reports, air incident reports and especially the issues written in the safety notes published by the helicopter manufacturers shall be explained to the students by instructors on every occasion. The importance of the lessons learned from these events shall be emphasized and shall be well understood about the results when not obeyed the rules.

1.21 FACILITY REQUIREMENTS (ORA.GEN.215, AMC1 ORA.GEN.215)

KAAN ATO has the necessary facilities required to carry out all duty and activities.

(a) The below flight operation facilities are available;

(1) a flight planning room with the following facilities:
(i) appropriate current maps and charts;
(ii) current aeronautical information service (AIS) information
(iii) current meteorological information;
(iv) communications to air traffic control (ATC) and the operations room;
(v) any other flight safety related material.
(2) adequate briefing rooms/cubicles of sufficient size and number;
(3) suitable offices for the supervisory personnel and room(s) to allow flight instructors to write reports on students, complete records and other related documentation;
(4) furnished crew-room(s) for instructors and students.

(b) For theoretical knowledge instruction the below facilities are available:

(1) adequate classroom accommodation for the current student population;
(2) suitable demonstration equipment to support the theoretical knowledge instruction;
(3) offices for the instructional personnel

1.22 AERODROMES AND OPERATING SITES (ORA.ATO.140, AMC1 ORA.ATO.140)

When providing flight training on an aircraft, the ATO shall use aerodromes or operating sites that have the appropriate facilities and characteristics to allow training of the maneuvers relevant, taking into account the training provided, and the category and type of aircraft used.

(a) the base aerodrome or operating site and any alternative base aerodromes at which flight training is being conducted should have at least the following facilities:

(1) at least one runway or final approach and take-off area (FATO) that allows training aircraft to make a normal take-off or landing within the performance limits of all the aircraft used for the training flights;
(2) a wind direction indicator that is visible at ground level from the ends of each runway or at the appropriate holding points;
(3) adequate runway electrical lighting if used for night training;
(4) an air traffic service, except for uncontrolled aerodromes or operating sites where the training requirements may be satisfied safely by another acceptable means of air-to ground communication.

(b) in addition to (a), for helicopters, training sites should be available for:
(1) confined area operation training;
(2) simulated engine off autorotation; and
(3) sloping ground operation.

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2.1 HELICOPTER DESCRIPTIVE NOTES

2.1.1 A119

Basic Information

TYPE OF OPERATION	This helicopter is approved for **day and night VFR** operation, in non icing condition. No aerobatic maneuvers are permitted.
FLIGHT CREW	The minimum flight crew consists of **one pilot** who shall operate the helicopter from the right crew seat.
NUMBER OF SEATS	8 (pilot included).
AIRSPEED LIMITATIONS (IAS)	VNE (Power-ON/OFF)..... : Max 150 Kt Minimum airspeed in autorotation (without close external references) ..... : 60 KIAS Maximum airspeed with torque between 100 and 108.5% (take-off power range)..... : 75 KIAS
FLIGHT WITH PASSENGER CABIN DOORS OPEN OR REMOVED	VNE with one or both doors open or removed ...: 85 KIAS VNE during doors opening and closing op..... : 70 KIAS
GROUND SPEED LIMITATIONS	Maximum forward speed at touchdown after engine failure .....: 50 kts
Maximum Gross Weight	2850 kg (6283 lb.).
Minimum Gross Weight for flight	1725 kg (3803 lb.).
ALTITUDE LIMITATIONS	Maximum operating altitude ..... : 15000 ft (4572 m) Hp
GENERATOR LOAD LIMITATIONS	Continuous operation..... : 0 to 200 A Maximum ..... : 200 A Transient (5 seconds) ..... : 300 A
BAGGAGE COMPARTMENT LIMITATIONS	Maximum load..... : 150 kg (330 lb.) Maximum unit load.....: 500 kg/m2 (102 lb./sq ft)

Dimensions of fuselage and cabin are as follows:

A119 Fuselage Dimensions

Height : 3.598 m
Width : 2,700 m
Length : 13,013 m
Width of Skids : 2,000 m

A119 Cabin Dimensions

Width : 1,666 m

2.1.2 AW109

Basic Information

TYPE OF OPERATION	The AW109 helicopter, in its basic configuration, is approved for Day and Night VFR and IFR operations in non-icing conditions. Aerobatic maneuvers are prohibited.
MINIMUM FLIGHT CREW	The minimum flight crew consists of one pilot who shall operate the helicopter from the right crew seat. The left crew seat may be used for an additional pilot when the approved dual controls are installed.
NUMBER OF SEATS	8 (pilot included).
AIRSPEED LIMITATIONS (IAS)	VNE (Power-ON) ..... 168 KIAS, See Related Figure VNE (OEI/Power-OFF): ..... VNE (Power-ON) - 40 KIAS VNEI (maximum IFR airspeed) ..... VNE (Power-ON) - 20 KIAS Vmini (minimum IFR airspeed) .....55 KIAS Maximum airspeed during IFR/VFR approaches..... 140 KIAS Maximum landing gear operating airspeed (VLO) ..... 140 KIAS Maximum landing gear extended airspeed (VLE).....140 KIAS Minimum airspeed in autorotation (without close external references)..... 60 KIAS Maximum airspeed with single AP operational: — normal flight ..... VNE (Power-ON) - 40 KIAS — in IFR/VFR approaches ..... 115 KIAS — in moderate to high turbulence ..... 115 KIAS Maximum airspeed with AFCS OFF: . VNE (Power-ON) - 40 KIAS Maximum airspeed for searchlight extension, orientation and retraction ..... 135 KIAS
WEIGHT	Maximum gross weight for ground taxing and towing ..... 3175 kg (7000 lb.) Maximum gross weight for take-off and landing.3175 kg (7000 lb.) Minimum gross weight for flight..... 2050 kg (4519 lb.)
AMBIENT AIR TEMPERATURE LIMITATIONS	Minimum ambient air temperature .....-25 °C (-13 °F) Maximum sea level ambient air temperature .....50 °C (122 °F) The maximum ambient air temperature for operation decreases with pressure altitude at the standard lapse rate of 2 °C (3.6 °F) every 1000 ft (305 m) up to 20000 ft (6096 m).
SLOPE LIMITATIONS	From 90° to the left of nose up to 90° to the right of nose up.10 deg Nose down .....2 deg
DOORS OPENED OR REMOVED	VNE with any door removed or open to lock position.....75 KIAS Maximum airspeed for passengers cabin sliding doors opening or closing .....50 KIAS IFR operation is prohibited with any doors opened or removed.

Dimensions of fuselage and cabin are as follows:

AW109 Fuselage Dimensions

Height	: 2,446 m	Width	: 7,756 m
		Length	: 12,958 m
		L/G Clearance	: 2,150 m

2.1.3 AW139

Basic Information (For MTOM 6400 kg Version)

TYPE OF OPERATION	In the basic configuration the rotorcraft is approved for Day/Night VFR and Day/Night IFR operations.
MINIMUM FLIGHT CREW	Visual Flight Rules (VFR) Day - One pilot unless otherwise required by operating rules. Single pilot operation not permitted from left seat. Visual Flight Rules (VFR) Night and Instrument Flight Rules (IFR) Day/Night - Two pilots.
NUMBER OF OCCUPANTS	The total number of occupants, including the crew, shall not exceed: — low density configuration..... 14 — high density configuration.....17 — Each occupant must have a seat and seat belt. — The low density or high density configuration may have a reduced number of passenger seats installed in cabin. A minimum of 3 seats, in at least one row, must be installed. — After seat removal or installation the new empty weight and C of G position must be determined and entered into Section 6 to ensure C of G limits are not exceeded.
AIRSPEED LIMITATIONS (IAS)	Vne (Power ON, OEI/Power OFF) ..... See related figure Maximum airspeed with Take-Off Power ..... 90 KIAS Maximum airspeed with NR at 102% ..... 90 KIAS Maximum airspeed in sideward or rearward flight ..... See Figure Maximum allowable tailwind and crosswind ..... See Figure Maximum landing gear operating airspeed (Vlo) .... 150 KIAS or Vne if less Maximum landing gear extended airspeed (Vle) .... 150 KIAS or Vne if less Minimum airspeed for flight under IFR (Vmini) ..... 50 KIAS Maximum airspeed for IFR approach..... 150 KIAS Maximum airspeed for climb with one AP failed ..... 100 KIAS Maximum rate of climb with one AP failed ..... 1000 fpm Maximum airspeed with one AP failed..... VNE -27 KIAS Maximum airspeed for operation of windscreen wipers..... 140 KIAS Minimum airspeed in autorotation ..... 40 KIAS Maximum airspeed with right cabin door locked open ..... 100 KIAS Maximum airspeed with left or both cabin doors locked open 80 KIAS Maximum airspeed for opening/closing cabin doors ..... 80 KIAS
GROUND SPEED LIMITATIONS	**ON PAVED SURFACES** Maximum taxi speed ..... 40 knots (74 km/hr.) (above 20 knots (36 km/hr.) nose wheel must be locked fore and aft) Maximum for emergency landing speed (nose wheel locked in fore and aft position) ..... 60 knots (110 km/hr.) Maximum towing speed ..... 37 km/hr. (23 mph) **ON PREPARED GRASS SURFACES** Maximum taxi speed (above 10 knots (18 km/hr.) nose wheel must be locked fore and aft) ..... 20 knots (37 km/hr.) Maximum for emergency landing speed (nose wheel locked fore and aft) ..... 40 knots (74 km/hr.)

WEIGHT AND CENTER OF GRAVITY LIMITATIONS	**WEIGHT** Maximum gross weight for towing or taxi ..... 6450 kg Maximum gross weight for CAT B take-off/landing ..... 6400 kg Refer to CAT B W.A.T Limits chart Minimum flight/rotor running gross weight ..... 4400 kg **CENTER OF GRAVITY** Longitudinal limits ..... See Figure at RFM Lateral limits ..... See Figure at RFM
AMBIENT AIR TEMPERATURE LIMITATIONS (OAT)	Minimum temperature for ground starting..... -40° C Maximum ambient air temperature ..... See Figure Minimum ambient air temperature ..... See Figure **ICING LIMITATIONS** Flight into known icing conditions is prohibited. Flight into freezing rain is prohibited.
SLOPE LIMITATIONS	Sloped Take Off and Landing are limited to the following: Nose up.....5° Nose Down .....5° Left Wing Low .....5° Right Wing Low..... .....5°

Dimensions of fuselage and cabin are as follows:

AW139 Fuselage Dimensions

Height : 4,98 m
Width : 4,22 m
Length : 16,62 m
Width of Gears : 3,04 m

Height of Cabin Door : 1,32 m

- For 6800 kg and 7000 kg versions; see AW 139 RFM related Supplements.

2.2 AIRCRAFT HANDLING (CHECKLIST, LIMITATIONS, MAINTENANCE AND TECHNICAL LOGS)

2.2.1 A119 CHECKLIST

NORMAL PROCEDURES

COLD WEATHER OPERATIONS

The battery should be stored in a warm place during prolonged helicopter inactivity. Engine starting with a cold, fully charged battery was demonstrated down to an OAT of -10 °C.

PRE-FLIGHT CHECK

Pre-flight checks are intended as those checks to be performed by the pilot in order to ascertain that the helicopter is flightworthy and adequately equipped. They are therefore not meant as detailed mechanical inspections, but as a guide to check the condition of the helicopter. Passengers should be briefed on relevant operational procedures and associated hazards.

PILOT'S DAILY PRE-FLIGHT CHECK (First flight of the day)

The following procedure outlines the pilot walk-around and interior checks.
Main and tail rotor tie-downs (if present) : Removed.

Area N°1 (Helicopter Nose)

Nose exterior : Condition.
Landing lights : Condition.
Nose compartment access door : Open.
Battery : Secured; connectors secured.
Electrical/avionic equipment : Secured.
Nose compartment access door : Secured; fastener security pin out.

Area N°2 (Fuselage - RH side)

Lateral panel, windshield and roof transparent panel : Condition and cleanliness.
Windshield wiper (if installed) : Condition.
External power receptacle : Door secured.
OAT probe : Condition.
Pilot door, window and, if installed, sliding window : Condition, cleanliness, security and correct operation of locking mechanism.
Sliding window closed.
Pitot tube/static ports : Cover removed; condition and obstructions.
Fuselage exterior : Condition.
Ventilation air intake : Free of obstructions.
Passenger door, window and, if stalled, sliding window : Condition, cleanliness and security. Sliding window closed.
Passenger door lock : Check.
Passenger door jettison window : Security of window and seal retainer.
Check red strap secured.
Drain and vent lines : Leaks.
Landing gear skid and attachments : Condition.
Fuel filler cap : Secured.
Servo hydraulic system valves and filters group : Leaks and bypass indication (red button out: filter clogged).
Door secured.
Hydraulic system reservoirs : Correct oil level, filler caps secured.
Quick-disconnect return lines secured.
Door secured.
Main rotor head and blades : Condition.
In cold weather check for the removal of snow, frost or ice.
Turn the rotor by hand at least once before start-up.
Main rotor dampers : Check for correct fluid level.
Main rotor pitch change links : Condition and security.
Upper anticollision light : Condition.
Servo actuator : Condition and leaks.
Main transmission and accessories (visible area) : Condition and leaks.
Transmission external oil filter : Bypass indication (red button out: filter clogged).
Door secured.
Engine upper and RH air intake screens and plenum chamber : Covers removed; foreign matter and condition.
Engine oil : Correct level and cap secured.
Engine area : Leaks of fuel and/or oil.
Engine to transmission drive shaft : Condition.
Engine cowling : Condition; secured.
Engine exhaust duct : Cover removed; condition.
Cowlings and fairings : Condition and secured.
Access doors : Secured.

Area N°3 (Tail boom - RH side)

Tail boom exterior : Condition.
Lower anti-collision light : Condition.
Antenna(s) : Condition.
Stabilizer and protective fairing : Condition and security.

Navigation light : Condition.

Area N°4 (Fins, 90° gearbox, tail rotor and tail skid)
Exterior : Condition.
Tail skids : Condition and security.
Tail rotor (90°) gearbox : Check oil level.
Check for leaks.
Filler cap secured.
Access doors : Secured.
Tail navigation light : Condition.
Tail rotor hub and blades : Condition, security and freedom of flapping.
In cold weather check for the removal of snow, frost or ice.
Tail rotor pitch change mechanism : Condition and secured.

Area N°5 (Tail boom - LH side)
Tail boom exterior : Condition.
Stabilizer and protective fairing : Condition and security.
Navigation light : Condition.
Antenna(s) (if installed) : Condition.
Tail rotor drive shaft bearing : Condition.
Tail rotor drive shaft dampers : Condition.
Tail rotor drive fairing : Secured.

Area N°6 (Fuselage - LH side)
Tail rotor servo actuator (inside baggage compartment) : Condition and leaks.
Baggage compartment : Cargo properly secured.
Door secured.
Fuselage exterior : Condition.
Drain and vent lines : Leaks.
Oil cooler rear end : Foreign matter.
Transmission to fan shaft : Condition and security.
Engine area : Leaks of fuel and/or oil.
Engine oil filter : Check for bypass indication (button out: filter clogged).
Engine cowling : Condition; secured.
Engine exhaust duct : Cover removed; condition.
Main rotor head and blades : Condition.
In cold weather check for the removal of snow, frost or ice.
Main rotor dampers : Check for correct fluid level.
Main rotor pitch change links : Condition and security.
Main rotor servo actuators : Condition and leaks.
Door secured.
Main transmission and accessories (visible area) : Condition and leaks.
Transmission : Filler cap secured.
Transmission oil : Correct level.
Door secured.
Engine LH air intake screen and plenum chamber : Cover removed; foreign matter, and condition.

Cowlings and fairings : Condition and secured.
Access doors : Secured.
Landing gear skid and attachments : Condition and security.
LH and RH fuel sumps or (if installed and d.c. power connected) fuel drain valve #1(#2) switch : Drain.
Roof transparent panel, windshield and lateral panel : Condition and cleanliness.
Windshield wiper (if installed) : Condition.
Passenger door, window and, if installed, sliding window : Condition, cleanliness and security.
Sliding window closed.
Passenger door lock : Check.
Passenger jettison window : Security of window and seal retainer.
Check red strap secured.
Co-pilot door, window and, if installed, sliding window : Condition and cleanliness,
security and correct operation of locking mechanism. Sliding window closed.
Check following systems for correct operation (connect d.c. electrical power supply):
— navigation and anticollision lights;
— landing lights.
Disconnect the d.c. electrical power supply.

Area N° 7 (Cabin interior)
Cabin interior : Security of equipment and cargo.

Note
Operation with passenger sliding doors open or removed requires the removal or securing of all cabin equipment.
First aid kit (if installed) :
Security and contents on board.
Cabin fire extinguisher (if installed) : Security.
Co-pilot door jettison handle and safety latch : Correct position.
Co-pilot safety belt and inertia reel : Condition and belt fastened if seat is unoccupied.
Pilot door jettison handle and safety latch : Correct position.
Pilot safety belt and inertia reel : Condition.
Relay box circuit breakers : IN.
Pilot flight controls : Condition and security.
Instruments : Condition and legibility.

PILOT'S PRE-FLIGHT CHECK (Every flight)

Main and tail rotors tie-downs : Removed.
Nose compartment access door : Condition; latched.
RH side, windshield and roof
Transparencies : Condition and cleanliness.
Pitot tube/static ports : Cover removed; free of obstructions.
RH side crew/passenger doors : Condition, hinges and latches.
Sliding windows (if installed) closed.
RH forward fuselage : Condition.
RH landing gear skid assembly : Condition.
Fuel filler cap : Secured
Main rotor blades : Condition and cleanliness.
Main rotor dampers : Correct fluid level.
RH engine air intake : Cover removed; free of obstructions.
RH engine exhaust : Cover removed.
RH side access panels : Closed and secured.
RH aft fuselage : Condition.
RH horizontal stabilizer/fairing : Condition and security.
Vertical fins/tail skid : Condition and security.
Tail rotor gearbox : Correct oil level.
Tail rotor blades and hub : Condition, cleanliness and
security.
LH horizontal stabilizer/fairing :
Condition and Security

Tail rotor drive shaft cover : Closed and latches secured.
LH aft fuselage : Condition.
Antenna(s) (if installed) : Condition.
Baggage compartment : Baggage secured; door latched.
LH engine exhaust : Cover removed.
LH engine air intake : Cover removed; free of obstructions.
Transmission oil : Correct level.
LH landing gear skid assembly : Condition.
LH side access panels : Closed and secured.
LH side crew/passenger doors : Condition, hinges and latches.
Sliding windows (if installed) closed.
LH forward fuselage : Condition.
LH side, windshield and roof
Transparencies : Condition and cleanliness.
Cabin interior : Loose items secured.
Seat belts/shoulder harnesses : Unoccupied belts/harnesses secured.

ENGINE PRE-START CHECK

All switches : OFF or CLOSED.
Pedals and seats : Adjust.
Seat belt : Fasten and adjust.
Cyclic stick : Centered (or positioned to counter wind) and friction adjusted.
Collective lever : Fully down and friction adjusted.
Circuit breakers : IN.
Engine throttle : OFF. Check IDLE and FLT positions;
move MAN/NOR selector
to MAN and rotate the throttle
full open up to MAX then back to FLT.
Return the MAN/NOR selector
to NOR and up (locked) position.
Rotate the throttle to IDLE.
Release the IDLE stop until
throttle returns to the OFF position.
After prolonged exposure
on ground to very low temperature
(below - 20 °C), the force
required to rotate the engine
throttle may slightly increase.
STATIC source switch : NORM and protected.
Altimeter : Set.
BAT switch : ON; check voltage at least 24 V.
Note
In cold weather conditions wait for EDUs warm-up period
until the information on the displays are clearly readable.
BUS switch : ON.

Note
On helicopter power-up, the IDS FAN caution light temporarily
illuminates (built-in test). No corrective action is required.
External power (if used) : Connect.
Note
Be sure that external power source supplies not less than 28 V.
Electronic Display Units
(EDU 1 and EDU 2) : Check on.
MCL and MWL : Push to reset.
IGN switch : AUTO.
POS lights switch : As required.
A-COLL lights switch : ON.
ENG HTR switch : ON.
COMPASS MAG/DG switch : MAG
F-TRIM switch : ON
SERVO switch : NORM.
EDU 1 : Press TEST key;
check the following test sequences on the EDUs and on the IDS FAN caution light. EDU 1 : ENG FIRE warning message and

FUEL LOW caution message are
presented for 4 seconds in the message area.
The ENGINE FIRE aural message is activated.

Note
During the test the IDS will activate the MASTER WARNING/MASTER CAUTION lights: they will be reset automatically
at the end of the test sequence.
Note
If a failure is detected on Engine Fire and/or Fuel Low
detectors, the caution messages FIRE DET and/or F
LOW FAIL will remain displayed on EDU 1. In this case
the MCL will not be reset automatically.
EDU 2 : Check that fuel quantity indications decrease on both scales,
that the LH fuel quantity indication
becomes boxed and yellow
and that the RH fuel quantity
indication becomes boxed and
crossed as soon as the indicated
quantity decreases below 120 kg.
IDS FAN caution light : Temporarily illuminates.
EDU 1 and EDU 2 : At the end of the test automatically
return to previous formats.
EDU 2 : Press TEST key; observe the
same sequences as above on EDU 1 and EDU 2.
Note
In case of different result of test sequence refer to the pertinent
paragraph of Section 3 or to the A119/AW119MKII Maintenance Manual.
Aural Warning Generator test : Set AWG switch on TEST and
maintain. Check the aural message
“TEST OK” and, after approximately 3 seconds, the
AWG FAIL caution message activates and the vocal alarm operates in the following sequence:
“ROTOR LOW”
“ENGINE OUT”
“ENGINE FIRE”
“WARNING”
“ROTOR HIGH”
“ONE HUNDRED FIFTY FEET”.
Fuel quantity : Check.
FUEL VALVE switch : OPEN and associated light illuminated.
Xfer PUMP switch : XFER.
EDU 1 : XFER PUMP caution message out.
FUEL PUMP 1 switch : ON.
EDU 1 : FUEL PUMP 1 caution message out.
EDU 2 : Check fuel pressure.
FUEL PUMP 1 switch : OFF.
FUEL PUMP 2 switch : ON.
EDU 1 : FUEL PUMP 2 caution message out.
EDU 2 : Check fuel pressure.
FUEL PUMP 1 switch : ON.
EEC/MEC switch : Accomplish EEC self-test by cycling the switch (MEC - EEC):
check that EEC FAIL, EEC
DEGRADED and MEC OPN
caution messages illuminate sequentially.
A successful self-test is indicated
by the MEC OPN caution
message remaining displayed at
the end of the test sequence.
Note
With NR below 30%, the MEC OPN caution message is displayed regardless of the EEC/MEC switch position.

STARTING PROCEDURE

ENGINE START
Collective control : Flat pitch, check.
START pushbutton
(on collective lever) : Press and release.
EDU 1 : ENG START and IGNITER ON
advisory messages displayed .
Note
Observe starter limitations in Section 1.
Engine throttle (with N1 > 12%
and residual ITT < 100°C) : IDLE.
Gas generator (N1) : Note increasing.
Engine temperature (ITT) : Note increasing.

CAUTION
Maximum ITT transient during starting is 1090 °C, not to exceed two seconds above 980 °C. A linear variation applies above 870 °C, ten seconds, and 980 °C, two seconds.
Consult EMM if ITT limits are exceeded.

CAUTION
Monitor engine start and if light up is not obtained within
10 seconds after the throttle has been set to IDLE, shutdown
the engine by returning the throttle to OFF and press and release again the START switch.
Following an aborted start perform the following procedure
before restarting:
— after N1 has come to a complete stop, allow a 30 seconds
fuel drain period;
perform a 15 seconds DRY MOTORING RUN.
Refer to Section 1 for engine starter limitations and to DRY MOTORING RUN procedure in this section.
Engine oil pressure : Check.

Note
During cold starting conditions, the engine oil pressure can temporarily exceed 110 psi; it reduces as oil temperature increases.
Engine starter : Automatically deactivated when N1 reaches approximately 43%.
EDU 1 : ENG START and IGNITER ON advisory message out.
Note
EDU 1 automatically changes to CRUISE format 5 seconds after N1 reaches 51%.
Hydraulic systems : When main rotor begins to rotate, check rise in hydraulic pressure.
Pedals : Paired.
Note
Avoid any cyclic movement below 85% NR except to prevent hitting blade stops.
Gas generator (N1) : Stabilized at 61 ±1%, check.
Note
During cold starting, low IDLE N1 speed may occur. Provided the N1 is not less than 51%, a warm-up period of 3 minutes should restore the correct N1 IDLE setting. If not,
an additional 3 minutes warm-up period should be accomplished.
At the end, if the N1 IDLE setting is still below 61 ±1%, shut down the engine and consult the EMM.
Engine and transmission oil : Check pressures and temperatures.
Note
On ground, in IDLE condition, the transmission oil pressure
indication can be below the green arc. No corrective
action is required provided that the oil temperature indication
is in the green arc.
BAT switch : Check ON.
External power : Disconnect (if used); door secured.
EDU 1 : EXT PWR ON caution message out.
GEN switch : ON.
Check DC GEN caution message out.
INV 1 and 2 switches : ON. Check INV 1 (2) OFF caution messages out.
RAD MSTR switch : ON.
Ammeter : Check current within limits.
Engine throttle : Rotate to FLT position.

Note
With engine oil temperature below 10 °C, leave the
engine throttle at IDLE until the engine oil temperature reaches 10 °C. Then, if transmission oil temperature is still at 0 °C, the engine throttle should be rotated to FLT position smoothly to prevent exceedance of the transmission oil pressure maximum limit.

Note
During engine throttle increase, if the transmission oil pressure is still below the green arc the XMSN OIL
PRESS warning messages activates. No corrective
action is required provided that the oil temperature is in the green arc.
EDU 1 : PLA POS caution message out.
NR : 102%.
EEC/MEC switch
(first flight of the day only) : MEC.
EDU 1 : MEC OPN caution message displayed.

Note
A small power and NR change is to be expected when switching from EEC to MEC and vice versa.
NR : Check at 97% (adjust, if needed,
using NR TRIM switch).
EEC/MEC switch : EEC. Check MEC OPN caution message out.
Note
With the EEC mode engaged the NR TRIM switch is inoperative.
NR : 102%.
Proceed to “SYSTEM CHECK”.

DRY MOTORING RUN
The following procedures is used to clear the engine of internally
trapped fuel and vapor or if there is evidence of fire within the engine.
Engine throttle : OFF.
IGN switch : OFF.
FUEL VALVE switch : CLOSED.
FUEL PUMP 1 and 2 switches : OFF.
START pushbutton
(on collective lever) : Push and hold as necessary.
Note
Observe starter limitations in Section 1.
START pushbutton
(on collective lever) : Release.
IGN switch : AUTO.

BEFORE TAKE-OFF
Communication and navigation
Frequencies : Set as required.
Voltammeter : Within limits.
Cockpit lights : As required.
External lights : Check and leave as required.
CAUTION
Landing lights operation shall be limited to the time necessary
to carry out take-off and landing maneuvers in order to avoid overheating.
Note
When operating the landing lights, the stand-by magnetic
compass indication is not reliable.

Caution and Warning messages : Check none.

TAKE-OFF AND CLIMB

Collective : Increase slowly and bring the helicopter to a 3 ft AGL hover.
Pedals : Apply as necessary to maintain direction.
Flight instruments : Check.
Engine parameters : Within limits.
Hydraulic systems instruments : Within limits.
Cyclic and collective : Rotate the nose down approximately
10° from the hover datum.
While accelerating increase slightly the torque to avoid loss of altitude.
At 30 KIAS increase torque by approximately 15% and adjust cyclic to obtain 0° attitude.
Continue acceleration to VY.
At VY increase torque as required by the desired flight path.

Note

Do not exceed TQ and ITT limits (refer to Section 1).
Force trim pushbutton (on cyclic stick) : Trim as desired for attitude reference
changes during hover and climb out.

IN FLIGHT

Collective : Adjust as necessary to keep engine parameters within limits.
Airspeed : Maintain within limits shown on VNE placards.
Landing lights : OFF, if used.
EDU 1 : LANDING LT ON advisory message out.
PITOT heat : As required.

CAUTION

Turn Pitot heat on for flight in visible moisture and in rain regardless of ambient temperature.
Altitude : As required.

CAUTION

Refer to applicable operating rules for high altitude oxygen requirements.

Note

Above 7000 ft Hp NR/N2 needle split in autorotation may occur above 103% N2. In this case, in accordance with N2 limitations reduce N2 within the limit of 103% using engine throttle.
If transient limit is exceeded consult EMM.

Note

In case of intentional selection of EEC/MEC switch to
MEC position, reduce engine power below 50% TQ
before re-selecting the switch to EEC position to minimize torque transients.
HELIPILOT indicators : Monitor and re-center by depressing
the FTR pushbutton switch on cyclic grip.

Note

During very cold temperature conditions, the longitudinal
cyclic control force may increase up to 2 kg maximum.
IGN switch : CONT.
EDU 1 : IGNITER ON advisory message displayed.

Note

When the IGN switch is set to CONT the engine automatic
starter feature is armed and permits automatic starting of the engine in case of flame out.

APPROACH AND LANDING

Engine parameters : Within limits.
External lights : As required.
Landing lights : As required.

CAUTION

Landing lights operation shall be limited to the time necessary
to carry out takeoff and landing maneuvers in order to avoid overheating.

Note

When operating the landing lights, the stand-by magnetic
compass indications is not reliable.
Approach path : Perform the approach at 75 KIAS.
Reduce the airspeed gradually
with the cyclic. At 70 ft make a
flare and apply collective as
required to bring the helicopter
to a 3 ft AGL hover.
After reaching a hover descend
slowly to the ground surface.

CAUTION

Additional care must be taken during nose-down slope operations in order not to touch the ground with tail.

SHUTDOWN

Collective lever : Check fully down.
Cyclic stick and pedals : Centered and trimmed.
Pedals : Centered.

Note

Do not apply collective in this phase and during rotor
deceleration, particularly in windy conditions.
Below 85% NR, avoid any cyclic movement except to
prevent hitting blade stops.
Engine throttle : IDLE for at least 30 seconds to allow ITT to stabilize.
EDU 1 : PLA POS caution message displayed.
Engine throttle : OFF.

CAUTION

During shutdown check that the N1 speed decelerates freely. Note any abnormal noise or

rapid rundown. In this event perform corrective maintenance action as per EMM.
FUEL PUMP 1 and 2 switches : OFF.
EDU 1 : FUEL PUMP 1 and 2 caution messages displayed.
FUEL VALVE switch : CLOSED.
Associated light : Out.
Xfer PUMP switch : OFF.
EDU 1 : XFER PUMP caution message displayed.
PITOT heat : OFF, if used

ENG HTR switch : OFF.
Cockpit lights : OFF.
External lights : OFF.
Landing lights : OFF, if used.
RAD-MSTR switch : OFF.
Miscellaneous switches : OFF.
INV 1 and INV 2 switches : OFF.
GEN switch : OFF.
BAT switch : OFF.
Pitot, intake and exhaust covers : Installed.

CAUTION
Wait at least 5 minutes after pitot heat has been switched off before installing pitot static tube covers.
Wait at least 30 minutes after engine shutdown before installing engine exhaust ducts covers.
Refer to the A119/AW119MKII Maintenance Manual for additional information.

2.2.2 AW109 CHECKLIST : Flight Manual Section 2 NORMAL PROCEDURES

2.2.3 AW139 CHECKLIST : Flight Manual Section 2 NORMAL PROCEDURES

2.2.4 LIMITATIONS

A119 LIMITATIONS : Flight Manual Section 1 LIMITATIONS.
AW109 LIMITATIONS : Flight Manual Section 1 LIMITATIONS
AW139 LIMITATIONS : Flight Manual Section 1 LIMITATIONS

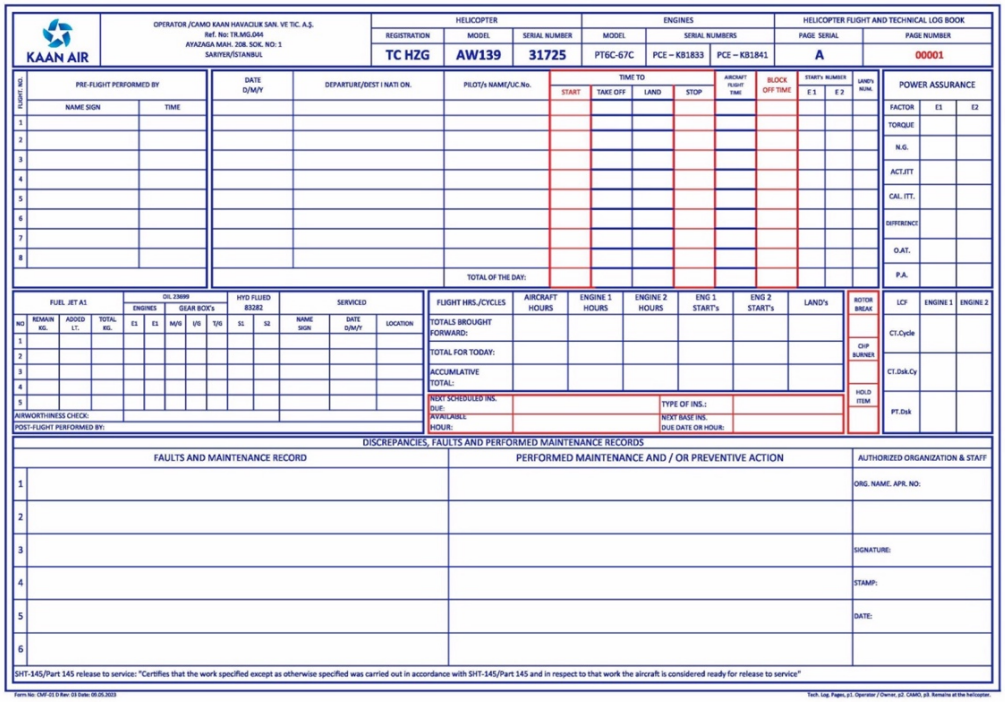
2.2.5 HELICOPTER MAINTENANCE AND TECHNICAL LOGS

a. Helicopter Maintenance

1. Maintenance is done by KAAN HAVACILIK SAN.VE TİC.A.Ş. SHY-145 Maintenance Department and/or contracted maintenance institutions and maintenance logs are filled in accordance with the procedures.
2. Helicopter Maintenance logs are kept in locked cabinets by the Department of Maintenance Management.

b. Helicopter Technical Logs

1. Helicopter technical log is the document where the operation details, defects, maintenance and controls are written.
2. Helicopter technical log shall be carried in the helicopter.
3. An example of Technical Log is as follows;



KAAN AIR

OPERATOR /CAMO KAAN HAVACILIK SAN. VE TIC. A.Ş.
Ref. No: TR.MSL.044
AYAZAGA MAH. 208. SOK. NO: 1
SARIYER/ISTANBUL

HELICOPTER: REGISTRATION TC HZG | MODEL AW139 | SERIAL NUMBER 31725
ENGINES: MODEL PT6C-67C | SERIAL NUMBERS PCE – KB1833 | PCE – KB1841
HELICOPTER FLIGHT AND TECHNICAL LOG BOOK: PAGE SERIAL A | PAGE NUMBER 00001

FLIGHT NO	PRE-FLIGHT PERFORMED BY NAME SIGN	PRE-FLIGHT PERFORMED BY TIME	DATE D/M/Y	DEPARTURE/DEST I NATI ON.	PILOT/s NAME/UC.No.	TIME TO START	TIME TO TAKE OFF	TIME TO LAND	TIME TO STOP	AIRCRAFT FLIGHT TIME	BLOCK OFF TIME	START's NUMBER E1	START's NUMBER E2	LAND's NUM.
1														
2														
3														
4														
5														
6														
7														
8														
					TOTAL OF THE DAY:									

POWER ASSURANCE

FACTOR	E1	E2
TORQUE		
N.G.		
ACT.ITT		
CAL. ITT.		
DIFFERENCE		
O.AT.		
P.A.		

FUEL JET A1 NO	REMAIN KG.	ADDED LT.	TOTAL KG.	OIL 23699 ENGINES E1	OIL 23699 GEAR BOX's E1	M/G	I/G	T/G	HYD FLUED 83282 S1	S2	SERVICED NAME SIGN	DATE D/M/Y	LOCATION
1													
2													
3													
4													
5													

AIRWORTHINESS CHECK:
POST-FLIGHT PERFORMED BY:

FLIGHT HRS./CYCLES	AIRCRAFT HOURS	ENGINE 1 HOURS	ENGINE 2 HOURS	ENG 1 START's	ENG 2 START's	LAND's
TOTALS BROUGHT FORWARD:						
TOTAL FOR TODAY:						
ACCUMULATIVE TOTAL:						

NEXT SCHEDULED INS. DUE:
AVAILABLE HOUR:
TYPE OF INS.:
NEXT BASE INS. DUE DATE OR HOUR:

ROTOR BRAKE | CHIP BURNED | HOLD ITEM

LCF	ENGINE 1	ENGINE 2
CT.Cycle		
CT.Dak.Cy		
PT.Dak		

DISCREPANCIES, FAULTS AND PERFORMED MAINTENANCE RECORDS

	FAULTS AND MAINTENANCE RECORD	PERFORMED MAINTENANCE AND / OR PREVENTIVE ACTION	AUTHORIZED ORGANIZATION & STAFF
1			ORG. NAME. APR. NO:
2			
3			SIGNATURE:
4			STAMP:
5			DATE:
6			

SHT-145/Part 145 release to service: "Certifies that the work specified except as otherwise specified was carried out in accordance with SHT-145/Part 145 and in respect to that work the aircraft is considered ready for release to service"

2.3 EMERGENCY PROCEDURES

A119 Emergency Procedures

Flight Manuel Section 3 EMERGENCY AND MALFUNCTIONS PROCEDURES

AW109 Emergency Procedures

Flight Manuel Section 3 EMERGENCY AND MALFUNCTIONS PROCEDURES.

AW139 Emergency Procedures

Flight Manuel Section 3 EMERGENCY AND MALFUNCTIONS PROCEDURES

2.4 RADIO AND NAVIGATION AIDS

- Instructors are responsible for usage and selection of Navigation Aids based on the training areas and Department of Maintenance Management is responsible for ready for service.
- The radio and Navigation Aids in the helicopters are as follows:

RADIO AND NAV AIDS	A119	AW109	AW139
VHF Radio	2	2	2
GPS	1	1	1/2
VOR/ADF	1	1	-/1
VOR/ILS/MB/DME		1	2
Transponder	1	1	1
EFIS / PFD-MFD		4	4
TAS/TCAS		1	1
HSI		2	2
FMS			2
MCDU			2
DU			4
AHRS			2
EGPWS			1
Radio Altimeter	1	1	2

2.5 ALLOWABLE DEFICIENCIES

a. Helicopters may fly with allowable deficiencies however the “Minimum Equipment List (MEL)” is the baseline document.

b. MEL “1.ITEM, 2.REPAIR CATEGORY, 3.NUMBER INSTALLED, 4.NUMBER REQUIRED FOR DISPATCH and 5.REMARKS OR EXCEPTION” columns are evaluated by Department of Maintenance Management and is decided which allowable deficiencies the helicopter can fly with.

INTENTIONALLY LEFT BLANK

3.1 PERFORMANCE (RULES, TAKEOFF, ENROUTE, NAVIGATION, LAND, ETC.)

a. Performance planning is under the responsibility of flight instructors

b. Performance planning made by the student shall be controlled by the flight instructor in detail and shall be corrected if any inconvenience exists.

c. Parameters which have direct effect on performance such as OAT, Density Altitude, Wind and Weight of helicopter shall be taken into consideration during planning.

d. Performance numbers during takeoff, enroute and landing should be determined in accordance with the procedures in RFM Sections 4,5 and 9.

e. Basic topics for the performance planning are as follows:

1) Power Assurance
2) Wind Effects
3) Hover in Ground Effect (HIGE)
4) Hover out of Ground Effect (HOGE)
5) Height-Velocity Diagram
6) Avoidance Maneuvers
7) Climb Rate
8) Air Speed Calibration
9) Autorotation Glide Distance
10) Noise Characteristics
11) CAT A Maneuvers

3.2 FLIGHT PLANNING

a. Fuel: Fuel quantity calculation including the alternate fuel shall be determined by the flight instructor based on flight duration and performance factors.

	A119	AW109	AW139
Fuel Capacity	476 Kg (main tank) / 688 Kg. (w/ Supp Fuel Tank)	460 Kg (575 Lt)- Main Tank / 644 Kg (805 Lt)- Aux Tank	1270 Kg (1588 Lt) Main Tank / 1670 Kg (2087 Lt)- Aux
Fuel Consumption	180 Kg/hr.	200 Kg/hr.	400 Kg/hr.

b. Fuel: Fuel quantity calculation including the alternate fuel shall be determined by the flight instructor based on flight duration and performance factors.

	A119	AW109	AW139
Engine Oil Capacity	10,45 lt	5,25 Lt. x 2	8,00 Lt. x 2
XMSN Oil Capacity	10,3 lt	11 lt	19 lt

c. Minimum Safe Altitude: Flight instructor shall determine the minimum safe altitude in coordination with the ATC. Flight within the Height-Velocity shaded area should be avoided.

Except when necessary for take-off and landing when operating **under VFR in VMC** conditions, **no Commander operate** a helicopter:

- During **Day Operations** below the **Minimum Safe Altitude**, MSA depicted on the current VFR navigational chart; Over the **Congested Areas** of **cities, towns, or settlements** or over an open-air assembly of persons at a height less than **300 m (1.000 ft)** above the highest obstacle within a radius of 600 m from the aircraft;
- **Elsewhere** than as specified above, at a height less than **150 m (500 ft)** above the ground or water;
- **During Night Operations**;
    - At an altitude less than **300 m (1.000 ft)** above the highest obstacle within a horizontal distance of 5 miles from the course intended to be flown or,
    - In designated **mountainous terrain**, less than **600 m (2.000 ft)** above the highest obstacle within a horizontal distance of 5 miles from the course intended to be flown; (When applicable),

Except when necessary for take-off or landing or when specially authorized by the TR DGCA, **on IFR flight** shall be flown at a level that is **not below the minimum flight altitude** established by the State whose territory is over flown; or where no such minimum flight altitude has been established;

- Over **high terrain** or in **mountainous areas**, at a level which is at least **600 m (2.000 ft)** above the highest obstacle located within 8 KM of the estimated position of the aircraft,
- **Elsewhere** than as specified in (a) at a level which is at least **300 m (1.000 ft)** above the highest obstacle located within 8 km of the estimated position of the aircraft.

d. Navigation Equipment: Instructors are responsible for usage and selection of Navigation Aids based on the training areas and Department of Maintenance Management is responsible for ready for service.

The details can be found in Section 2.4

3.3 LOADING

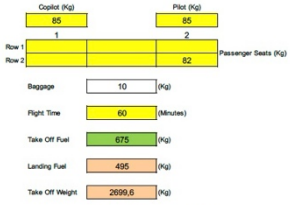
a. Loading parallel to mass and balance calculation is under the responsibility of the flight instructor.
b. Weight of instructor and students, temperature and the properties of operation should be taken into consideration as being factors effecting this matter directly.
c. Mass and balance calculation shall be done both longitudinal and lateral. Loading shall be done within the CG limits.
d. Loading, mass and balance detailed information can be found in RFM Section 6.
e. Basic topics about Loading, mass and balance are as follows:
1) General
2) Datum Line and Position
3) Opening Cabin door and flight with open door
4) Weight and Moment Arm
5) Allowable Baggage Load
6) Loading calculation
7) Mass and Balance definitions
8) Use of chart and forms

3.3.1 A119, AW109, AW139 Sample Sheets:

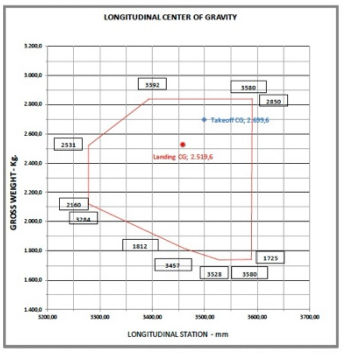
1)

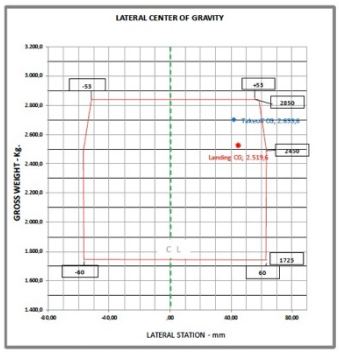
TC-HKE AW-119 MK II WEIGHT AND BALANCE COMPUTATION FORM

KAAN HAVACILIK SANAYİ VE TİCARET A.Ş.



Fuel Calculation For Flight		
	Flight Fuel	Total Fuel
Kilograms	150	688
Liters	188	860
US Gallons	50	229
Pounds (lbs.)	331	1517





WEIGHT AND BALANCE COMPUTATION FORM

MODEL	S/N	REG.MARK	DATE	PLACE	COMPUTED BY
AW-119 Mk II	14707	TC-HKE	18.11.2022	KAAN	KAAN

Ref.	ITEM	Weight (Kg)	CG Arm (mm)	Moment (Kg mm)	Butt line (Arm) (mm)	Moment (Kg mm)
1	Empty Weight	1.752,4	3536	6.196.487,2	38,351	76.050,0
2	Pilot	85	1585,0	134.725	350	29.750,0
3	Copilot / Passenger Forward	85	1585,0	134.725	-325	-27.625,0
4	If Mid Seat Installed	0	0,0	0,0	0,0	0,0
5	Engine Oil	10,2	4675,0	47.685,0	0,0	0,0
6	Cabin Load	0	2455,0	0	430,0	0,0
7	Cabin Load	0	2455,0	0	0,0	0,0
8	Cabin Load	0	2455,0	0	-430,0	0,0
9	Passenger Aft - Right	82	3200,0	262.400	430,0	35.260,0
10	Passenger Aft - Mid	0	3200,0	0	0,0	0,0
11	Passenger Aft - Left	0	3200,0	0	-430,0	0,0
12	Baggage	10	4880,0	48.800	0,0	0,0
13	Gross Weight (Zero Fuel)	2024,6	3370,9	6.824.822	56,0	113.435
14	Fuel (Take off)	675,0	3880,5	2.619.338	0,0	0,0
15	TAKE OFF GROSS WEIGHT	2.699,6	3498,4	9.444.160	42,0	113.435,0
16	Gross Weight (Zero Fuel)	2.024,6	3370,9	6.824.822	56,0	113.435
17	Fuel (landing)	495,0	3821,0	1.891.395	0,0	0,0
18	LANDING GROSS WEIGHT	2.519,6	3459,4	8.716.217	45,0	113.435,0

ROUTES	
Passenger (1 - 7)	
Crew	: 85 Kg.
Male	: 90 Kg.
Female	: 72 Kg.
Children (2-12)	: 35 Kg.
Hand Luggage	: 6 Kg.
Survival	: 3 Kg.
Max. Fuel	: 688 Kg.
Fuel Flow	: 180 Kg/h
Fuel Flow	: 3 Kg/min.

FOF-07 Rev-1 Date: 18.11.2022

Signature

1)

TC-HKG A-109 SP WEIGHT AND BALANCE COMPUTATION FORM

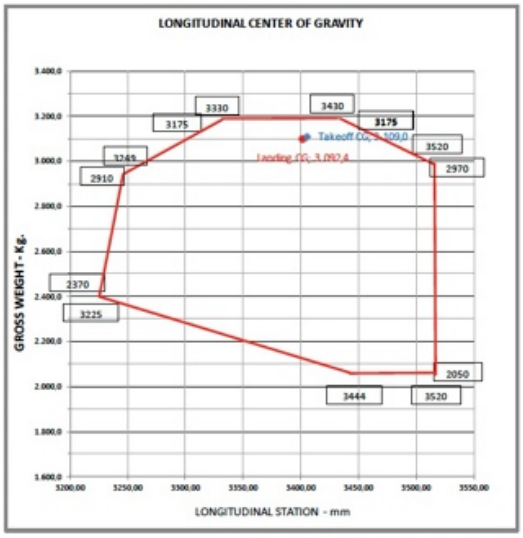
KAAN HAVACILIK SANAYİ VE TİCARET A.Ş.

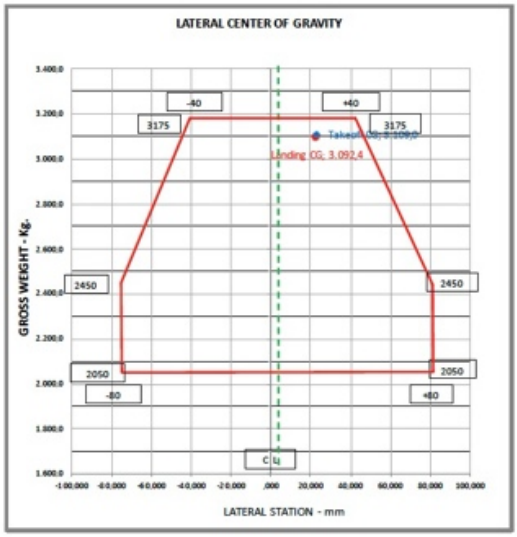
	Copilot (Kg)	Pilot (Kg)
	85	85
	1	2
Row 1	0	0
Row 2	112	90

Passenger Seats (Kg)

Baggage	6	(Kg)
Flight Time	5	(Minutes)
Take Off Fuel	420	(Kg)
Landing Fuel	403	(Kg)
Take Off Weight	3109,0	(Kg)

	Fuel Calculation For Flight	
	Flight Fuel	Total Fuel
Kg.	17	633,6
Liters	21	792
US Gallons	6	211
Pounds (lbs.)	37	1397





WEIGHT AND BALANCE COMPUTATION FORM

MODEL	S/N	REG.MARK	DATE	PLACE	COMPUTED BY
AW-109 SP	22278	TC-HKG		KAAN	

Ref.	ITEM	Weight (Kg)	STA (mm)	Long Mom. (Kgmm)	BL mm	Lat Mom. (Kgmm)
1	HELICOPTER EMPTY	2.301,0	3469	7.983.075,00	11,59	30.150,00
2	PILOT	85	1385,00	117.725,00	335,00	28.475,00
3	COPILOT	85	1385,00	117.725,00	-325,00	-27.625,00
4		0	0,00	0,00	0,00	0,00
5	Engine Oil	10,0	4280,00	42.800,00	0,00	0,00
6		0	0,00	0,00	0,00	0,00
7	FWD LH passenger	0	2200,00	0,00	-450,00	0,00
8	FWD central passenger	0	2200,00	0,00	0,00	0,00
9	FWD RH passenger	0	2200,00	0,00	450,00	0,00
10	AFT LH passenger	0	3400,00	0,00	-450,00	0,00
11	AFT CENTER passenger	112	3400,00	380.800,00	0,00	0,00
12	AFT RH passenger	90	3400,00	306.000,00	450,00	40.500,00
13	Baggage	6	5045,00	30.270,00	0,00	0,00
14	DRY Weight (Zero Fuel)	2689,0	3338,93	8.978.395,00	26,59	71.500,00
15	Fuel (Take off)	420,0	3834,00	1.610.280,00	0,00	0,00
16	TOTAL WEIGHT (T/O)	3.109,0	3405,81	10.588.675,00	23,00	71.500,00
17	DRY Weight (Zero Fuel)	2.689,0	3338,93	8.978.395,00	26,59	71.500,00
18	Fuel (landing)	403,4	3824,84	1.542.750,22	0,00	0,00
19	LANDING WEIGHT	3.092,4	3402,31	10.521.145,22	23,12	71.500,00

ROUTES	
AYAZAĞA	ÇIRAĞAN
Passenger (6 - 9)	
Crew	: 85 Kg.
Male	: 96 Kg.
Female	: 78 Kg.
Children (2-12)	: 35 Kg.
Hand Luggage	: 6 Kg.
Max. Fuel	: 633,6 Kg.
Fuel Flow	: 200 Kg/h
Fuel Flow	: 3,33 Kg/min.

Form No:FOF-06 Rev:02 Date: 02.10.2015

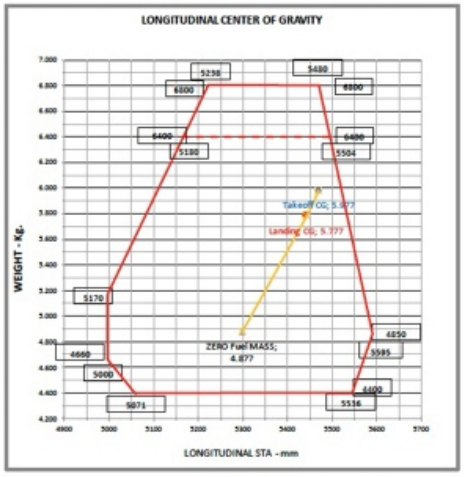
Signature

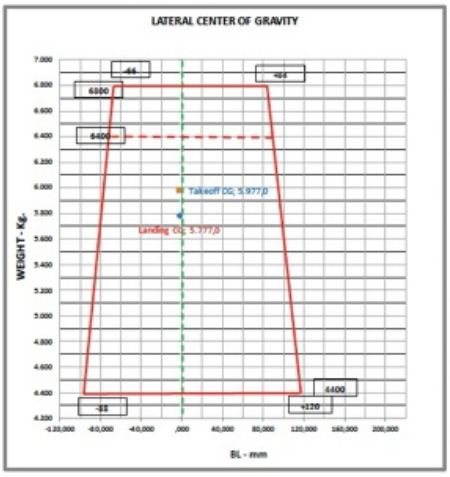
AW139 WEIGHT AND BALANCE COMPUTATION FORM

TC-HKB

	LEFT SEAT (kg)		RIGHT SEAT (kg)
Co-Pilot:	85	Pilot:	85
Row 1	60	60	60	60
Row 2				
Row 3				

Baggage	20	(kg)
Flight Time	30	(minutes)
Takeoff Fuel	1100	(kg)
Landing Fuel	900	(kg)
Takeoff Weight	5977,0	(kg)





WEIGHT AND BALANCE COMPUTATION FORM

MODEL	S/N	REG.	DATE	PLACE	COMPUTED BY
AW139	31480	TC-HKT	15.10.2022	KAAN	KAAN TECHNIC

Ref.	ITEM	Weight (Kg)	STA (mm)	Long Mom. (Kgmm)	Place BL mm	Lat Mom. (Kgmm)
1	HELICOPTER EMPTY	4.447,0	5480	24.392.155	-3,250	-14.480
2	PILOT (RIGHT SEAT)	85	2820	239.700	550,00	46.750
3	COPILOT (LEFT SEAT)	85	2820	239.700	-550,00	-46.750
4	FWD-A-RIGHT	60	3415	204.900	737,00	44.220
5	FWD-B-RIGHT	60	3415	204.900	254,00	15.240
6	FWD-C-LEFT	60	3415	204.900	-254,00	-15.240
7	FWD-D-LEFT	60	3415	204.900	-737,00	-44.220
8	MID-E-RIGHT	0	4789	0	737,00	0
9	MID-F-RIGHT	0	4789	0	254,00	0
10	MID-G-LEFT	0	4789	0	-254,00	0
11	MID-H-LEFT	0	4789	0	-737,00	0
12	AFT-I-RIGHT	0	5600	0	737,00	0
13	AFT-L-RIGHT	0	5600	0	254,00	0
14	AFT-M-LEFT	0	5600	0	-254,00	0
15	AFT-N-LEFT	0	5600	0	-737,00	0
16	Baggage FWD		7200	0	0,00	0
17	Baggage CENTER	20	7700	154.000	0,00	0
18	Baggage AFT		8200	0	0,00	0
19	Operating Weight (incl 2 pilots)	4877,0	5299	25.845.155	-2,97	-14.480
20	Fuel (takeoff)	1.100,0	6227	6.849.700	0,00	0
21	TOTAL WEIGHT (T/O)	5.977,0	5470	32.694.855	-2,42	-14.480
22	Operating Weight (incl 2 pilots)	4.877,0	5299	25.845.155	-2,97	-14.480
23	Fuel (landing)	900,0	6221	5.598.900	0,00	0
24	TOTAL WEIGHT (LDG)	5.777,0	5443	31.444.055	-2,51	-14.480

ROUTE	
DATE	
FLT NO	
STANDARD WEIGHTS	
Crew	: 85 kg
Male	: 92 kg
Female	: 74 kg
Hand Luggage	: 6 kg
Max. Fuel	: 1670 kg
Fuel Flow	: 400 kg/h
Fuel Flow	: 6,66 kg/min

Commander's Sign.

FOF-08 / REV-10 / 26.09.2023

3.4 WEATHER MINIMA (FOR INSTRUCTORS and EXAMINARS)

Flight instructors at KAAN ATO have VFR flight limits as indicated in AIP ENR 1.2 such as;

1) Except when a clearance is obtained from the appropriate ATS unit, VFR flights shall not take off or land at an aerodrome within a control zone or enter the aerodrome traffic zone or traffic pattern when the ceiling is less than 1500 FT(450 M) or when ground visibility is less than 3 KM within controlled airspace.
2) For helicopters, ground visibility shall not be less than 2 KM outside of controlled airspace.
3) VFR flights between sunset and sunrise or at night or above FL 200 shall be operated in accordance with the conditions prescribed by appropriate authority.
4) 'Night' means the period between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise.

3.5 WEATHER MINIMA (FOR STUDENTS)

Students at KAAN ATO have VFR flight limits as indicated in AIP ENR 1.2 such as;

1) Except when a clearance is obtained from the appropriate ATS unit, VFR flights shall not take off or land at an aerodrome within a control zone or enter the aerodrome traffic zone or traffic pattern when the ceiling is less than 1500 FT(450 M) or when ground visibility is less than 3 KM within controlled airspace.
2) For helicopters, ground visibility shall not be less than 2 KM outside of controlled airspace.
3) VFR flights between sunset and sunrise or at night or above FL 200 shall be operated in accordance with the conditions prescribed by appropriate authority.
4) 'Night' means the period between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise.

3.5.1 Wind Limitation for Students

Headwind within +/- 10º has no limits for the maneuvers. During engine start up the following limits shall be obeyed;

- A119 Refer to RFM Section 4 Performance, Operations Vs Allowable Wind
- AW109 40 Kts – 360º
- AW139 60 Kts – Rotor Starting and Stopping and maximum crosswind 20 Kts,

For the remaining conditions, refer to related types' wind/landing charts.

3.6 TRAINING ROUTES OR AREAS

KAAN ATO uses the below flight training areas:

a. KAAN Heliport Ayazaga / İstanbul (41° 7' 34''K 28° 59' 03'"D) and area between KAAN Heliport and Black Sea Coastline.

b. İstanbul Terminal Area (TMA) (LTBA)

c. **HEZARFEN AIRPORT (LTBW)**

City	:	İstanbul
Geo-location	:	41° 6.188'K 28° 32.843'D
Working hours	:	08:30-17:30 L

d. **BURSA YENİŞEHİR AIRPORT (LTBR)**

City	:	Bursa
Geo-location	:	40° 15.310'K 29° 33.698'D
Working hours	:	08:30-17:30 L

e. TEKİRDAĞ ÇORLU AIRPORT (LTBU)

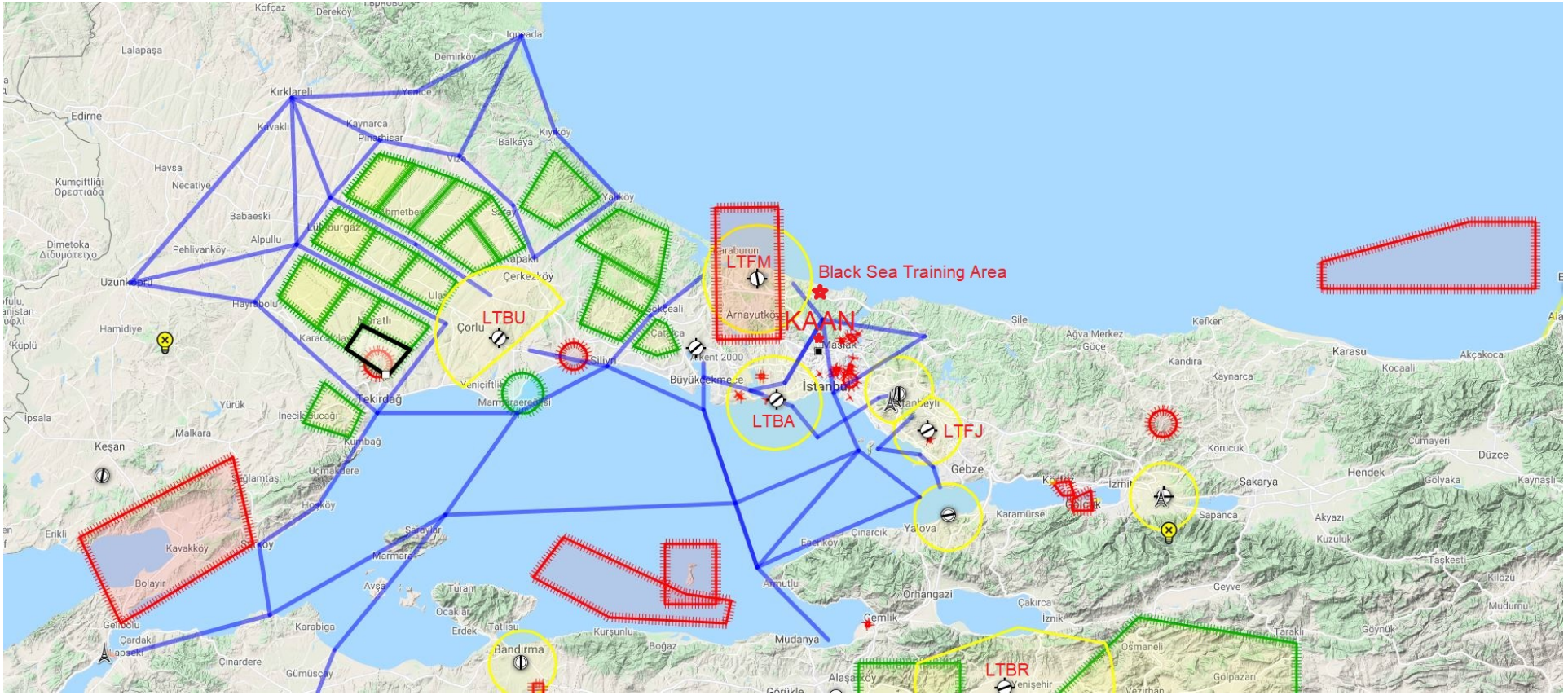
City	:	Tekirdag
Geo-location	:	41° 8.251'K 27° 55.097'D
Working hours	:	08:30-17:30 L

f. THK / ANTALYA Karain Airport

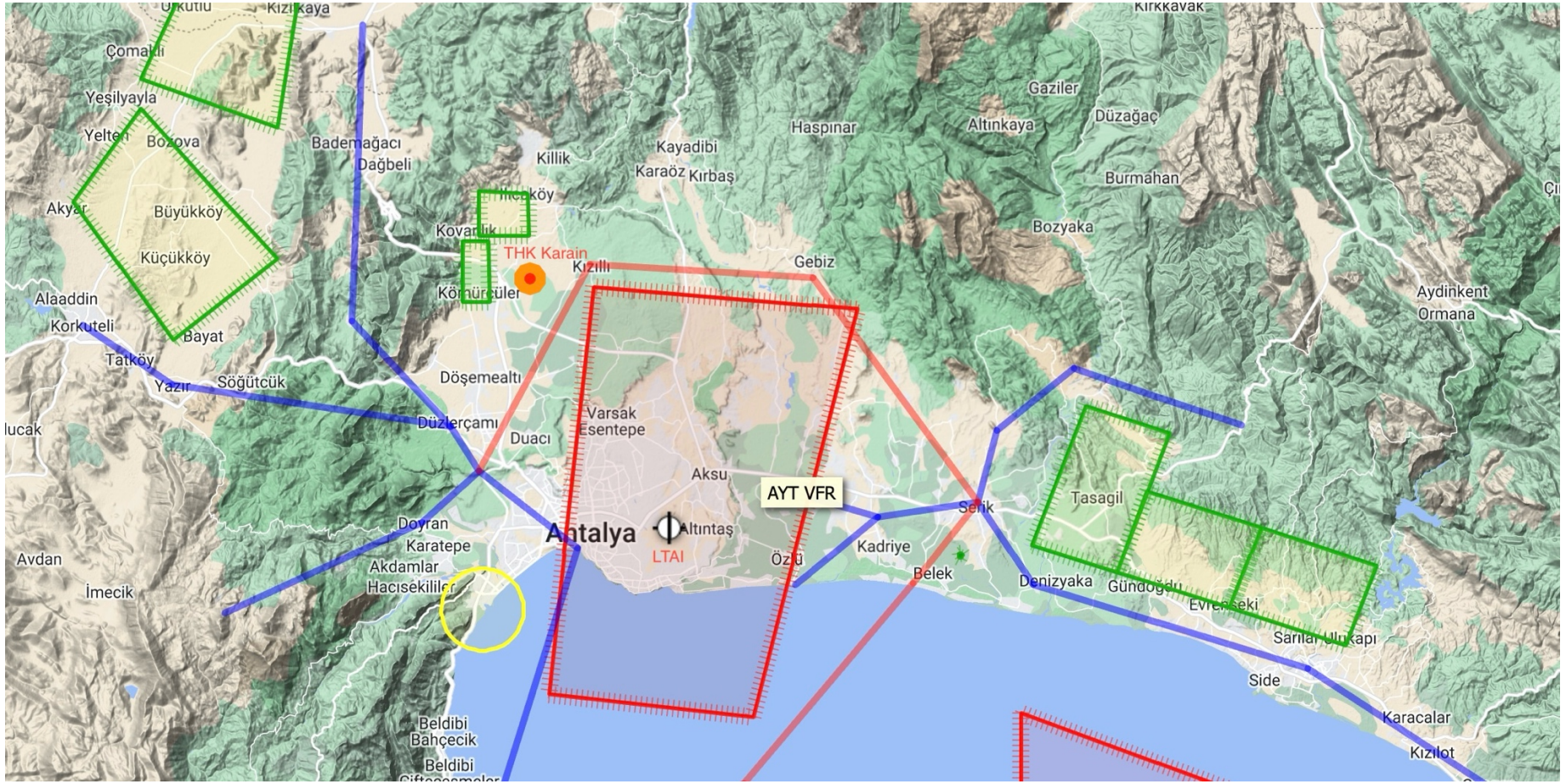
City	:	Antalya
Geo-location	:	37° 5.707'K 30° 38.868'D
Working hours	:	08:30-17:30 L

Except for the airports included in the military inventory, flights to be made at the airports in the DHMI inventory will be made with pre-coordination with the ATS unit and an appropriate flight plan is submitted to the agreement to be reached.

KAAN HELIPORT VICINITY AND ISTANBUL TERMINAL AREA



ANTALYA TERMINAL AREA and THK KARAIN AIRPORT



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4.1 APPOINTMENTS OF PERSONS RESPONSIBLE FOR STANDARTS / COMPETENCE OF FLIGHT PERSONNEL

a. Head of Training is responsible for maintaining the high level of training standards of flight and theoretical knowledge instructors and examiners in KAAN ATO.
b. The personal responsibilities and standards defined in KAAN ATO Training Manual Section 1.8.1 are referred for the checking of proficiency of flight personnel.

4.2 INITIAL TRAINING

Instructors and examiners who are assigned for duty in KAAN ATO shall take initial training in advance. Generally, the pilot assigned as flight instructor shall have a Flight Instructor license and shall comply with training experience defined in PART-FCL and SHT-FCL Subpart J.

The instructor assigned for duty in KAAN ATO shall have a briefing about the topics below for the adaptation of training procedures and asked to read them.

1. Operation Manual,
2. Training Manual,
3. Compliance Monitoring Manual.

- The records which instructors and examiners are informed about the above topics are stored in instructor file.
- Additionally, 1 hour training flight is planned for the familiarization of training sites of KAAN ATO.
- Instructors have type rating training for the aircrafts in KAAN AIR inventory of which they are not type rated previously.

4.3 REFRESHER TRAINING

4.3.1 Revalidation and Renewal of TRI(H) Certificate (FCL.940.TRI TRI)

a. The instructor privileges which are issued by DGCA in accordance with PART FCL and SHT FCL are valid for 3 years.

Instructor pilot shall fulfil the 2 of following 3 requirements for the Refresher training.

1. Complete 50 hours of flight instruction on each of the types of aircraft for which instructional privileges are held or in an FSTD representing those types, of which at least 15 hours shall be within the 12 months preceding the expiry date of the TRI certificate,
2. Receive instructor refresher training as a TRI at an ATO,
3. Pass the assessment of competence.

b. The instructor shall, within the validity period of the TRI certificate, fulfil 2 of the following 3 requirements. For at least each alternate revalidation of a TRI certificate, the holder shall have to pass the assessment of competence.
c. If the TRI (H) certificate has lapsed, the instructor shall, within a period of 12 months before renewal, fulfil item 2 and 3.

4.3.2 Validity and Renewal of Type Ratings (AMC1 FCL.740(b))

a. The objective of the refresher training is for the applicant to reach the level of proficiency necessary to safely operate the relevant type of aircraft. The amount of refresher training needed should be determined on a case-by-case basis by the ATO or the instructor, as applicable, taking into account the following factors: (TRAINING MANUAL APPENDIX-6 REFRESHMENT TRAINING EVALUATION FORM)

1. the experience of the applicant;
2. the amount of time elapsed since the privileges of the rating were last used;
3. the complexity of the aircraft;
4. whether the applicant has a current rating on another aircraft type or class; and
5. where considered necessary, the performance of the applicant during a simulated proficiency check for the rating in an FSTD or an aircraft of the relevant type.

It should be expected that the amount of training needed to reach the desired level of proficiency will increase analogously to the time elapsed since the privileges of the rating were last used.

b. After having determined the needs of the applicant, the ATO or the instructor, as applicable, should develop an individual training program based on the initial training for the rating, focusing on the aspects where the applicant has shown the greatest needs.

c. With the exception of refresher training for ratings for aircraft referred to in point FCL.740(b)(2)(i), refresher training should include theoretical knowledge instruction, as necessary, such as for type-specific system failures in complex aircraft. The performance of the applicant should be reviewed during the training and additional instruction should be provided to the applicant, where necessary, to reach the standard required for the proficiency check.

d. After successful completion of the training, the ATO or the instructor, as applicable, should issue the applicant with a training completion certificate or another document specified by the competent authority, describing the evaluation of the factors listed in (a), the training received, and a statement that the training has been successfully completed. The training completion certificate should be presented to the examiner prior to the proficiency check. Following the successful renewal of the rating, the training completion certificate or the other document specified by the competent authority and the examiner report form should be submitted to the competent authority.

e. Taking into account the factors listed in (a) above, the ATO or the instructor, as applicable, may also decide that the applicant already possesses the required level of proficiency and that no refresher training is necessary. In such a case, the certificate or other documental evidence referred to in (c) above should contain a respective statement including sufficient reasoning.

4.4 STANDARDIZATION TRAINING

KAAN AIR pilots has academic training once a year depending on seasonal conditions. This training can be conducted in periods according to duty and rest conditions. Precautions should be taken to involve all personnel. The subjects during the training are determined depending on the training needs.

4.4.1 Annual Standardization Theoretical Knowledge Training

a. Provided by KAAN ATO.
b. New and little-known subjects are briefly reviewed.
c. Pilots may have standardization training in accordance with the durations in the table depending on requirements.

AIRCRAFT TYPES	LESSON					EXAM	**TOTAL HOURS**
	OCT/REC (A) Aircraft Systems Helicopter structure, transmission, rotors and equipment, normal and abnormal operation of systems, Engine, rotor and transmission, Fuel system, Hydraulic system, Landing gear.	Ice and rain protection, windshield wipers and rain repellent, Electrical power supply, Air conditioning, Flight controls, stability augmentation and autopilot system, Emergency equipment, Limitations, General limitations, according to the RFM, Minimum Equipment List (MEL)	OCT/REC (B) Normal / Operational procedures and requirements, Flight planning, ground-handling, de-icing/anti-icing flight operations; performance, Mass and Balance and servicing fuel schemes, selection of alternates, OCT (C) Abnormal and emergency procedures; Pilot Incapacitation,	OCT (D) REC (C) Ground and Refresher Training; Accident / incident and occurrence review.	Emergency And Safety Equipment Training (ESET)		
All Authorized Types	**01.00**	**01.00**	**OCT 02.00 REC 01.00**	**01:00**	**OCT 02.00 REC 01.00**	**01:00**	**OCT 08.00 REC 06.00**

OCT : Operator Conversion Training

REC : Annual Recurrent Training

4.5 PROFICIENCY CHECKS

4.5.1 Revalidation – Helicopters (FCL.740.H)

(a) Revalidation. For revalidation of type ratings for helicopters, the applicant shall:

(1) Pass a **proficiency check** in accordance with SHT-FCL Appendix 1.9 in the relevant type of helicopter or an FSTD representing that type within the 3 months immediately preceding the expiry date of the rating; and

(2) Complete at least 2 hours as a pilot of the relevant helicopter type within the validity period of the rating. The duration of the proficiency check may be counted towards the 2 hours.

(3) When applicants hold more than 1 type rating for single-engine piston helicopters, they may achieve revalidation of all the relevant type ratings by completing the proficiency check in only 1 of the relevant types held, provided that they have completed at least 2 hours of flight time as PIC on the other types during the validity period. The proficiency check shall be performed each time on a different type.

(4) When applicants hold more than 1 type rating for single-engine turbine helicopters with a maximum certificated take-off mass up to 3175 kg, they may achieve revalidation of all the relevant type ratings by completing the proficiency check in only 1 of the relevant types held, provided that they have completed:

(i) 300 hours as PIC on helicopters;
(ii) 15 hours on each of the types held; and
(iii) at least 2 hours of PIC flight time on each of the other types during the validity period. The proficiency check shall be performed each time on a different type.

(5) A pilot who successfully completes a skill test for the issue of an additional type rating shall achieve revalidation for the relevant type ratings in the common groups, in accordance with (3) and (4).

(6) The revalidation of an IR(H), if held, may be combined with a proficiency check for a type rating.

(b) An applicant who fails to achieve a pass in all sections of a proficiency check before the expiry date of a type rating shall not exercise the privileges of that rating until a pass in the proficiency check has been achieved. In the case of (a)(3) and (4), the applicant shall not exercise his/her privileges in any of the types.

4.5.2 Revalidation and Renewal of TRI (FCL.940.TRI)

(a) Revalidation

(1) Helicopters. For revalidation of a TRI(H) certificate, the applicant shall, within the validity period of the TRI certificate, fulfil the 2 of the following 3 requirements:

(i) Complete 50 hours of flight instruction on each of the types of aircraft for which instructional privileges are held or in an FSTD representing those types, of which at least 15 hours shall be within the 12 months preceding the expiry date of the TRI certificate.
(ii) receive **instructor refresher training** as a TRI at an ATO;
(iii) pass the assessment of competence in accordance with FCL.935.

(2) For at least each alternate revalidation of a TRI certificate, the holder shall have to pass the assessment of competence in accordance with FCL.935.

(3) If a person holds a TRI certificate on more than one type of aircraft within the same category, the assessment of competence taken on one of those types shall revalidate the TRI certificate for the other types held within the same category of aircraft.

(4) Specific requirements for revalidation of a TRI(H). A TRI(H) holding an FI(H) certificate on the relevant type shall have full credit towards the requirements in (a) above. In this case, the TRI(H) certificate will be valid until the expiry date of the FI(H) certificate.

(b) *Renewal*

(1) Helicopters. If the TRI (H) or TRI(PL) certificate has lapsed, the applicant shall, within a period of 12 months before renewal:

(i) receive **instructor refresher training** as a TRI at an ATO, which should cover the relevant elements of the TRI training course; and

(ii) pass the **assessment of competence** in accordance with FCL.935 in **each of the types of aircraft** in which renewal of the instructional privileges is sought.

4.5.3 Instrument Rating-IR (FCL.625)

(a) Validity. An IR shall be valid for 1 year.

(b) Revalidation:

(1) An IR shall be revalidated within the 3 months immediately preceding the expiry date of the rating.

(2) Applicants who fail to pass the relevant section of an IR proficiency check before the expiry date of the IR shall not exercise the IR privileges until they have passed the proficiency check.

(c) Renewal. If an IR has expired, in order to renew their privileges applicants shall:

(1) go through refresher training at an ATO to reach the level of proficiency needed to pass the instrument element of the skill test in accordance with SHT-FCL Appendix 1.9; and

(2) complete a proficiency check in accordance with SHT-FCL Appendix 1.9, in the relevant aircraft category

(d) If the IR has not been revalidated or renewed within the preceding 7 years, the holder will be required to pass again the IR theoretical knowledge examination and skill test.

4.6 UPGRADE TRAINING (INSTRUCTOR, EXAMINER)

a. For the development of training standards, all aviation publications are followed by all KAAN Approved Training Organization personnel.
b. Aviation information flow is ensured in cooperation with other aviation companies and aviation schools.

4.6.1 Type Rating Instructor (TRI)

a. The pilot who wants to have the privileges of Type Rating Instructor shall successfully complete the Type Rating Instructor course, which is covered in KAAN ATO Training Manual section 1.4.
b. The following table shows the sections and durations of the Type Rating Instructor Course.

Helicopter Type Rating Instructor Course Sections and Duration :

HELICOPTER CLASS	**PART 1 (**) TEACHING AND LEARNING** (FCL.930.TRI, AMC2 FCL.930.TRI) (Hours)		**PART 2 THEORETICAL TRAINING** (FCL.930.TRI, AMC2 FCL.930.TRI) (Hours)		**PART 3 FLIGHT TRAINING** (FCL.930.TRI, AMC2 FCL.930.TRI, GM1 FCL.910.TRI (b)(2)) (Hours)		
	THEORETICAL KNOWLEDGE TRAINING	EXAM	THEORETICAL KNOWLEDGE TRAINING	EXAM	FLIGHT TRAINING	ASSESSMENT OF COMPETENCE **(FCL.935, FCL.935.TRI)**	**TOTAL FLIGHT TIME**
SINGLE PILOT HELICOPTER **(FCL.930.TRI)**	25:00	02:00	10:00	01:00	(*) 05:00 HLCP	01:00 HLCP	**06:00 HLCP**
					04:00 SIM + 01:00 HLCP	01:00 HLCP	**04:00 SIM + 02:00 HLCP**
MULTI PILOT HELICOPTER **(FCL.930.TRI)**					(*) 10:00 HLCP	01:00 HLCP	**11:00 HLCP**
					04:00 SIM + 06:00 HLCP	01:00 HLCP	**04:00 SIM + 07:00 HLCP**
					10:00 SIM	02:00 SIM + 02:00 HLCP	**12:00 SIM + 02:00 HLCP**

NOTE: *The above flight hours are minimum and can be increased according to the candidate's situation and experience.*

* The TRI training course shall be conducted in the aircraft only if no FSTD is available.
** Applicants holding or having held an instructor certificate shall be fully credited towards the requirement of Part 1.

*** An applicant for a TRI certificate who holds an SFI certificate for the relevant type shall be fully credited towards the requirements of this paragraph for the issue of a TRI certificate restricted to flight instruction in simulators.

TRI Prerequisites (FCL.915.TRI)

An applicant for a TRI certificate shall:

- hold a CPL, MPL or ATPL pilot licence on the applicable aircraft category;

For TRI(H):

(1) For single-pilot single-engine helicopters, have completed 250 hours as a pilot on helicopters;
(2) For single-pilot multi-engine helicopters, have completed 500 hours as pilot of helicopters, including 100 hours as PIC on single-pilot multi-engine helicopters;
(3) For multi-pilot helicopters, have completed 1000 hours of flight time as a pilot on helicopters, including:
(i) 350 hours as a pilot on multi-pilot helicopters; or
(ii) for applicants already holding a TRI(H) certificate for single-pilot multi-engine helicopters, 100 hours as pilot of that type in multi-pilot operations.
(4) Holders of an FI(H) certificate shall be fully credited towards the requirements of (1) and (2) in the relevant single-pilot helicopter;

TRI – Training Course (FCL.930.TRI)

(a) The TRI training course shall be conducted in the aircraft only if no FSTD is available and accessible and shall include:
(1) 25 hours of teaching and learning;
(2) 10 hours of technical training, including revision of technical knowledge, the preparation of lesson plans and the development of classroom/simulator instructional skills;
(3) 5 hours of flight instruction on the appropriate aircraft or an FSTD representing that aircraft for single-pilot aircraft and 10 hours for multi-pilot aircraft or an FSTD representing that aircraft;
(4) the following training, as applicable:
(i) additional specific training before conducting LIFUS;
(ii) additional specific training before conducting landing training. That training in the FSTD shall include training for emergency procedures related to the aircraft.
(b) Applicants holding or having held an instructor certificate shall be fully credited towards the requirement of (a)(1).

(c) An applicant for a TRI certificate who holds an SFI certificate for the relevant type shall be fully credited towards the requirements of this paragraph for the issue of a TRI certificate restricted to flight instruction in simulators.

4.6.2 Examiner (TRE)

1) Examiner is authorized to perform the skill tests / proficiency checks of the pilot / pilot candidates, the competency assessments of the instructor pilot / examiner and the candidates and whose authority is approved by the General Directorate.

2) Examiners shall have a license or competence equivalent to the licenses or authorizations for which they are assigned to conduct competency tests, proficiency checks or competence assessments, and the instructor privileges of these licenses or authorizations.

3) Examiners: where a skill test, proficiency check, or competency assessment is performed on the aircraft, they are selected from individuals who meet the qualifications and experience requirements specified in the SHT-CONTROL PILOT directive, which are capable of flying as a pilot in command(PIC) in the mentioned aircraft.

4) The candidate for an examiner, including the suspension, restriction or cancellation of any of the licenses, authorizations or certificates issued in accordance with the SHT-FCL CONTROL PILOT directives within the last three years; no sanctions shall be imposed on the General Directorate legislation and the failure to comply with the EASA Basic Regulation and Implementation Rules.

5) The personality, character and the cooperation of the candidate with the General Directorate should be evaluated. The applications of these candidates are examined by **the General Directorate and accepted if deemed appropriate.**

6) Applicants applying for examiners must successfully complete the examiner standardization course.

7) For the examiner to be authorized, the examiner must be successful in the **competence assessment conducted by an examiner appointed by the General Directorate.**

8) When a new aircraft is produced, if there are no examiners capable of making control flights of this aircraft and who meet the conditions specified in the Directive, the General Directorate shall authorize an examiner to perform the control flights of this aircraft for the purpose of providing first authorization to the candidates and to perform a control flight in the new aircraft. The authorized examiner must have an examiner certificate for an aircraft which has at least the same type and number of engines and similar configuration with the new aircraft. The validity of the certificate must be limited to the time required to qualify the first examiners for the new aircraft, but in no way exceeds 3 years.

9) If candidates meet the requirements of more than one in the category of examiners, it is not limited to only one category of examiners but may be authorized by the Directorate General for more than one category of examiners at the same time.

10) The General Directorate publishes the current examiners list on the official website.

11) Control flight duration and limits;

- The number of daily control flights, skill test, proficiency check and assessment of competence flight times required by an examiner to be performed are described in the table in Appendix 1 of the SHT-CONTROL PILOT directive.
- The total time in the table should be calculated including pre-flight briefing and preparation, testing, control or assessment of competence, post-flight briefing, evaluation of the candidate and the organization of forms.
- (reserved)

12) Duration of PPL, CPL, IR or class rating control flight is planned as at least 3 hours, FI, CPL/IR, ATPL or **type rating** control flight is planned as at least 4 hours including preflight briefing and preparation, flight, de-briefing and evaluation of applicant and documentation.

13) Control flight time with helicopter or FSTD shall be minimum:

a) 90 minutes for PPL and CPL skill test including cross country and 60 minutes for **proficiency check**,

b) 60 minutes for IR, FI/TRI and **single pilot type/class rating** skill test, 60 minutes for proficiency check,

c) 120 minutes for multi pilot type/class rating and **ATPL skill test and proficiency check**,

d) **Assessment of competence;** 60 minutes for **TRI (aircraft),** 180 minutes for **TRI(FSTD)** and SFI.

14) All candidates wishing to have TRE privileges must have received the approved training from the approved training organization before the flight with the type rating examiner.

15) Briefing with the candidate; the applicant is given time to prepare for the control flight and the briefing covers the following topics;

- Purpose of control flight,
- Control of ID and license,
- The candidate will be given the right to ask questions,
- Specifying the operation procedures to be followed such as operation manual.
- Evaluation of meteorology,
- The privileges and responsibilities of candidate examiner and the candidate,
- Explaining what is expected from the candidate.
- Simulated meteorological conditions such as icing and cloud base.
- Use of displays,
- Content of the items subject to evaluation,
- Other parameters such as agreed aircraft operation speeds, angle of bank and approach minimums.
- Use of R/T,
- The behavior of the candidate and examiner in emergency conditions,
- Administrative procedures such as sending a flight plan.

16) The candidate examiner should maintain the necessary level of communication with the candidate. The candidate examiner should obey the below flight details:

- Inclusion of the examiner in the multi-pilot working environment,
- The need for clear instructions to the candidate,
- Responsibility for safe flight,
- Intervention of the examiner, when necessary,
- Use of displays,
- Compliance with ATC instructions and clear intention,
- Guidance of the candidate in time for subsequent events such as missed approach.
- Keeping short, realistic and unobtrusively notes.

17) Evaluation: The candidate examiner should be based on the specified flight test tolerances for the relevant test or control and should pay attention to the following points:

- Questions from the candidate,
- Giving the results of the test and failed parts,
- Explaining the reason for failure.

18) De-briefing: The candidate examiner should demonstrate the competence to perform an post-flight briefing based on fair, impartial and realistic elements to the auditor or senior examiner. The following points should be discussed with the candidate at the discretion of the examiner:

- Advise the candidate of avoiding errors and correcting them,
- Talking about other points of criticism identified,
- Presenting other recommendations that are considered to be helpful to the candidate.

4.6.2.1 Type Rating Examiner and Standardisation (TRE) (FCL.1000, FCL.1005, FCL.1010, FCL1015)

General prerequisites and requirements for Examiners (FCL.1000, FCL.1010, AMC1 FCL.1010)
Holders of an examiner certificate shall:

(1) hold, unless otherwise determined in this Manual, an equivalent licence, rating or certificate to the ones for which they are authorised to conduct skill tests, proficiency checks or assessments of competence and the privilege to instruct for them;

(2) be qualified to act as PIC in the aircraft during a skill test, proficiency check or assessment of competence if conducted on the aircraft.

(b) Special conditions:

(1) The Turkish DGCA may issue a specific certificate granting privileges for the conduct of skill tests, proficiency checks and assessments of competence if compliance with the requirements established in this Subpart is not possible because of the introduction of any of the following:

(i) new aircraft in the Member States or in an operator's fleet;

(ii) new training courses in this Annex.

Such a certificate shall be limited to the skill tests, proficiency checks and assessments of competence necessary for the introduction of the new type of aircraft or the new training course and its validity shall not, in any case, exceed 1 year.

(2) Holders of a certificate issued in accordance with point (b)(1) who wish to apply for an examiner certificate shall comply with the prerequisites and revalidation requirements for that category of examiner certificate.

(3) Where no qualified examiner is available, competent authorities may, on a case-by -case basis, authorize inspectors or examiners who do not meet the relevant instructor, type or class rating requirements as specified in (a), to perform skill tests, proficiency checks and assessments of competence.

4.6.2.2 Helicopter Type Rating Examiner Standardisation Course Sections and Duration

HELICOPTER CLASS	**PART 1** **THEORETICAL TRAINING** (FCL.1015, AMC1 FCL.1015)	**PART 2** **PRACTICAL** (FCL.1015, AMC1 FCL.1015)
Helicopter Type Rating Examiner Standardisation (FCL.1015)	06:00 hrs	The conduct of 2 skill tests, proficiency checks or assessments of competences for the licenses, ratings or certificates for which the applicant seeks the privilege to conduct tests and checks. OR practical training in an FFS conducting real or role-played proficiency checks, skill tests or assessments of competence (at least 2 days).

NOTE: *The above flight hours are minimum and can be increased according to the candidate's situation and experience.*

EXAMINER STANDARDIZATION THEORETICAL KNOWLEDGE TRAINING PROGRAM

WEEK	DAY	1. LESSON	REST	2. LESSON	REST	3. LESSON	LUNCH TIME	4. LESSON	REST	5. LESSON	REST	6. LESSON
1	1	EXST-1		EXST-2		EXST-3		EXST-4		EXST-5		EXST-6

EXAMINER STANDARDISATION THEORETICAL TRAINING FORM

TRAINING CODE	THEORETICAL TRAINING SHT-FCL, EASA FCL.1015,1020,1025,1030,1005	HOUR	DATE	CANDIDATE SIGNATURE	INSTRUCTOR SIGNATURE
EXST-1	STANDARDISATION ARRANGEMENTS FOR EXAMINERS LIMITATIONS PURPOSE OF A TEST OR CHECK CONDUCT OF TEST OR CHECK EXAMINER PREPARATION EXAMINER APPROACH ASSESSMENT SYSTEM METHOD AND CONTENTS OF THE TEST OR CHECK	01:00			
EXST-2	FCL,AMCs AND GMs TOPICS RELATED WITH EXAMINER STANDARDIZATION	01:00			
EXST-3	OPERATIONAL REQUIREMENTS AND RELEVANT AMCs AND GMs	01:00			
EXST-4	NATIONAL REQUIREMENTS FOR EXAMINER	01:00			
EXST-5	EVALUATION OF HUMAN PERFORMANCE AND LIMITS REGARDING FLIGHT CONTROLS	00:30			
EXST-6	PRINCIPLES OF EVALUATING CANDIDATE PERFORMANCE	00:30			
EXST-7	ATO MANAGEMENT SYSTEM	00:30			
EXST-8	PROTECTION OF PERSONAL INFORMATION, RESPONSIBILITIES, ACCIDENT INSURANCE AND PRICING	00:30			
TOTAL		**06:00**			