



GOVERNMENT OF INDIA
OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION
TECHNICAL CENTRE, OPP. SAFDARJUNG AIRPORT, NEW DELHI – 110003

CIVIL AVIATION REQUIREMENT
SECTION 8 – AIRCRAFT OPERATIONS
SERIES H PART II
ISSUE III, REV 01, ___ MAR 2025

EFFECTIVE : FORTHWITH
File No. AV.22024/3(H)/2015-FSD

**SUB : FLIGHT CREW TRAINING AND QUALIFICATION REQUIREMENTS
FOR COMMERCIAL HELICOPTER OPERATIONS**

1. INTRODUCTION

- 1.1 ICAO Annex 6 – Operation of Helicopters Part III contains Standard and Recommended Practices (SARPs) which covers flight crew requirements. The Annex requires operators to establish and maintain approved ground and flight training programmes which ensures that all flight crew members are adequately trained and qualified to perform their assigned duties. Rule 41 of the Aircraft Rules, 1937 requires applicants for licences and ratings to produce proof of having acquired the flying experience and having passed satisfactorily the test and examinations specified in Schedule II in respect of the licence or rating concerned.
- 1.2 This CAR lays down responsibilities of operators and flight crew towards training and qualification requirements to carry out operations, and is issued under the provisions of Rule 41, Rule 29C and Rule 133A of the Aircraft Rules 1937.

2. APPLICABILITY

- 2.1 This CAR is applicable to all operators, and pilots operating helicopters, in commercial air transportation.

Note - Additional requirements related to operation of Single Engine Turbine (SET) Helicopters for scheduled commercial operations are placed at Operations Circular 04 of 2018.

3. COMPOSITION OF FLIGHT CREW

An operator shall ensure that:

- 3.1 The composition of the flight crew and the number of flight crew members at designated crew stations are both in compliance with DGCA regulations, and not less than the minimum specified in the Rotorcraft Flight Manual (RFM) and Certificate of Airworthiness (C of A).
- 3.2 The flight crew includes additional flight crew members when required by the type of operation, and is not reduced below the number specified in the approved Operations

- Manual. The flight crew shall include crew members authorized by DGCA to operate the type of radio transmitting equipment to be used.
- 3.3 All flight crew members hold an applicable and valid license acceptable to DGCA and are suitably qualified and competent to conduct the duties assigned to them.
- 3.4 One pilot amongst the flight crew, qualified as a pilot-in-command (PIC) in accordance with the Aircraft Rules 1937, is designated as the PIC.
- 3.5 **Flight crew member emergency duties.** An operator shall, for each type of helicopter, assign to all flight crew members the necessary functions they are to perform in an emergency or in a situation requiring emergency evacuation. Annual training in accomplishing these functions shall be contained in the operator's training programme and shall include instruction in the use of all emergency and life-saving equipment required to be carried, and drills in the emergency evacuation of the helicopter.
- 3.6 **Flight crew member training programmes.** An operator shall establish and maintain a ground and flight training programme, approved by DGCA, which ensures that all flight crew members are adequately trained to perform their assigned duties. The training programme shall:
- 3.6.1 Include ground and flight training facilities and properly qualified instructors as determined by DGCA;
- 3.6.2 Consist of ground and flight training for the type(s) of helicopter on which the flight crew member serves;
- 3.6.3 Include proper flight crew coordination and training for all types of emergency and abnormal situations or procedures caused by engine, transmission, rotor, airframe or systems malfunctions, fire or other abnormalities;
- 3.6.4 Include training in knowledge and skills related to the visual and instrument flight procedures for the intended area of operation, human performance and threat and error management, the transport of dangerous goods and, where applicable, procedures specific to the environment in which the helicopter is to be operated;
- 3.6.5 Ensure that all flight crew members know the functions for which they are responsible and the relation of these functions to the functions of other crew members, particularly in regard to abnormal or emergency procedures;
- 3.6.6 Include knowledge and skills related to the operational use of head-up display and/or enhanced vision systems for those helicopters so equipped.
- 3.7 **Recent experience — Pilot-in-Command and Co-pilot.** An operator shall not assign a Pilot-in-Command or Co-Pilot to operate at the flight controls of a type or variant of a type of a helicopter during take-off and landing unless that pilot has operated the flight controls during at least three take-offs and landings within the preceding 90 days on the same type of helicopter or in a flight simulator approved for the purpose.
- 3.8 **Pilot-in-Command Operational Qualification.**

3.8.1 An operator shall not utilize a pilot as Pilot-in-Command of a helicopter on an operation for which that pilot is not currently qualified until such pilot has complied with Para 3.8.2 and 3.8.3.

3.8.2 Each such pilot shall demonstrate to the operator an adequate knowledge of:

3.8.2.1 The operation to be flown. This shall include knowledge of:

- (i) The terrain and minimum safe altitudes;
- (ii) The seasonal meteorological conditions;
- (iii) The meteorological, communication and air traffic facilities, services and procedures;
- (iv) The search and rescue procedures; and
- (v) The navigation facilities and procedures associated with the route or area in which the flight is to take place; and

3.8.2.2 Procedures applicable to flight paths over heavily populated areas and areas of high air traffic density, obstructions, physical layout, lighting, approach aids and arrival, departure, holding and instrument approach procedures, and applicable operating minima.

Note.— That portion of the demonstration relating to arrival, departure, holding and instrument approach procedures may be accomplished in an appropriate training device which is adequate for this purpose.

3.8.3 A pilot-in-command shall have made a flight, representative of the operation with which the pilot is to be engaged which must include a landing at a representative heliport, as a member of the flight crew and accompanied by a pilot who is qualified for the operation.

3.8.4 The operator shall maintain a record, sufficient to satisfy the DGCA of the qualification of the pilot and of the manner in which such qualification has been achieved.

3.8.5 An operator shall not continue to utilize a pilot as a pilot-in-command on an operation unless, within the preceding 12 months, the pilot has made at least one representative flight as a pilot member of the flight crew, or as a check pilot, or as an observer on the flight deck. In the event that more than 12 months elapse in which a pilot has not made such a representative flight, prior to again serving as a pilot-in-command on that operation, that pilot must requalify in accordance with Para 3.8.2 and 3.8.3.

3.9 **Flight time, flight duty periods and rest periods.** Refer CAR Section 7 Series J Part II.

3.10 **Crew Composition for IFR Flights.** The operator shall ensure as follows:

3.10.1 Helicopters, when flown under IFR, shall be flown by two pilots.

3.10.2 Both pilots shall hold current Instrument Rating on type.

Note : The requirement at 3.10.2 above shall not apply when the PIC is a TRE/TRI and the second pilot is undergoing IR training/check/test. Such checks/training shall not be carried out in a flight with passengers on board.

4. DESIGNATION AS PIC

- 4.1 An operator shall ensure that for upgrade to PIC (commander) from co-pilot and for those joining as PICs:
- 4.1.1 A minimum level of experience, acceptable to the DGCA, and
- 4.1.2 For multi crew operations, the pilot completes appropriate training, duly approved/accepted by DGCA.
- 4.2 Subject to the validity of the Instrument Rating, the privileges of the holder shall be to fly under the Instrument Flight Rules, the types of helicopters on which he has demonstrated his competency. Only pilots holding valid IR on type shall act as PICs under IFR. However, in case the IR has lapsed after initial endorsement, a pilot holding a valid CPL(H) or ATPL(H) may continue to exercise PIC privileges for VFR flying only, till the IR is successfully renewed.

5. INITIAL CREW RESOURCE MANAGEMENT (CRM) TRAINING

- 5.1 When a flight crew member has not previously completed initial CRM training (either new employees or existing staff), then the operator shall ensure that the flight crew member completes an introductory CRM training.
- 5.2 If the flight crew member has not previously been trained in human factors then a theoretical course based on Human Performance and Limitations topics shall be included with the Initial CRM training course, as mentioned vide Ops Circular 3 of 2004. Pilots with 2000 hours or more of multi crew experience, including those with such experience gained in service, shall be exempted from undergoing the initial CRM.
- 5.3 Initial CRM course training shall be conducted by an approved CRM facilitator.

6. EXTENSION OF AIRCRAFT RATING

- 6.1 Extension of type rating on a helicopter shall be carried out as follows:
- 6.1.1 By undergoing a type rating course at an ATO. In this case, requisite ground training, written test, flying training and skill tests shall be carried out at the ATO, details of which shall be submitted to DGCA for licence endorsement. No prior permission or NOC is required from DGCA for such training. However, in case of non-availability of helicopter with the ATO for completion of full type rating course, the pilot after undergoing requisite ground training, written test and simulator training, may undertake such balance of flying training on operator's helicopter with prior approval of flying training syllabus from DGCA. In such a case on completion of training he shall undergo Skill Test Day and Skill Test Night (if required) with a TRE or at the same ATO, towards completion of type rating. The duration of the Skill Test(s) shall not be less than that approved in the ATO syllabus or 0:45 hrs, whichever is more. Pilots undertaking only day VFR operations shall undergo Skill Test (Day), however it is recommended that such pilots may undertake night flying training as per ATO syllabus. Pilots undertaking IFR operations shall undergo Skill Tests (Day and Night) in addition to Instrument Rating Test.
- 6.1.2 The instructional flying training and Skill Tests shall not be undertaken by the same Examiner.

- 6.1.3 The licence and medical of the trainee need not be current and valid during the entire training or checks on the simulator. However the licence and medical must be current for training and checks on the aircraft.
- 6.2 The quantum of training depends on the complexity of the helicopter type, level of technology, handling characteristics and the previous experience of the pilot. Helicopters are grouped variously as Group 1 (A or B), Group 2 and Group 3 based on their handling characteristics.
- 6.2.1 **Group 1 Helicopters.** All single engine helicopters are classified as Group 1 helicopters for the purpose of training and operations as follows:
- 6.2.1.1 1A - all single engine helicopters with reciprocating engines.
- 6.2.1.2 1B - all single engine helicopters with turbine powered engines.
- 6.2.2 **Group 2 Helicopters.** All multi engine helicopters with maximum certified take off mass 5700 kg or less are classified as Group 2 helicopters.
- 6.2.3 **Group 3 Helicopters.** All multi engine helicopters with maximum certified take off mass exceeding 5,700 kg are classified as Group 3 helicopters.
- 6.3 **Ground Training Syllabus.** The syllabus and quantum of ground training shall be as approved by the OEM / as approved by the regulatory authority for the ATO, or in absence of both as approved by DGCA on a case to case basis.
- 6.4 **Flying Training Syllabus.** The syllabus and quantum of flying training shall be as approved by the OEM / as approved by the regulatory authority for the ATO, or in absence of both as approved by DGCA on a case to case basis.
- 6.4.1 **Credits for Military Flying Experience.** Adequate credit shall be granted for military flying experience i.e. flying hours flown while in military service on aircraft of the same type or variant.
- 6.4.1.1 A system of vetting the flying experience shall be followed, wherein the flying experience submitted by the applicant shall be perused and vetted on a case to case basis for approval.
- 6.4.1.2 Subsequent to approval, if the pilot meets all flying experience requirements and has recent flying experience on type from military, extension of rating may be granted subsequent to satisfactory training sorties (if required due to break in flying) and skill test by day and night. If the pilot is not meeting the recent flying experience on type then after undertaking recent flying experience required on type as per relevant regulations, the skill test by day and night shall be flown for endorsement of extension of rating.
- 6.5 **Simulators.** The level of qualification and the complexity of the type will determine the amount of practical training that may be accomplished in simulators, including completion of the skill test. Before undertaking the skill test, a student should demonstrate competency in the skill test items during the practical training.

6.6 **Flying Training Exercises.** Specific exercises to be carried out during extension of type rating are given in the Flight Report format at Appendix CA 43.

6.7 **Extension of Type Rating where no OEM / ATO Syllabus Exists.** Extension of type rating onto a type where no OEM / ATO syllabus exists, shall be approved by DGCA on a case to case basis along with the ground and flying training syllabus. The summary of minimum flying training breakdown, excluding skill test (with or without use of simulators), for initial conversion into any group in case of helicopters for which no approved ATO syllabus exists, is tabulated as under:

Conversion Type		Flying Training					Skill Test*
From Group	To Group	Only On Helicopter	With FSTDs				
			Using FFS B/C/D (FAA or EASA)		Using FTD 2/3 (EASA) or 6/7 (FAA)		
			On Helicopter	Total	On Helicopter	Total	
Any	1A (SEP)	5 hrs	2	6	4	6	Day 0:45
Any	1B	5 hrs	2	6	4	6	Day 0:45 and Night 0:45
2 or 3 (MET)	1B	5 hrs	2	6	4	6	
1 (SE P & T)	2 (MET=<5700 kg)	10 hrs	4	12	6	12	
3 (MET>5700 kg)	2 (MET=<5700 kg)	5 hrs	2	6	4	6	
1 (SE P & T)	3 (MET>5700 kg)	15 hrs	6	18	8	18	
2 (MET=<5700 kg)	3 (MET>5700 kg)	10 hrs	4	12	6	12	

* Skill test, as applicable, will be in addition to prescribed flying training.

Note: A skill test may be carried out in Full Flight Simulator (FFS) Level C/D (FAA/EASA Designation), or a Dual Qualification Simulator FFS B and FTD 3 (EASA Designation).

6.7.1 **Non-Similar Type of Helicopters within the same Group.** The minimum flight instruction, excluding skill test (with or without use of simulators), for conversion onto another type in the same group is as follows:

6.7.1.1 Using Only Helicopters. At least five hours of training including minimum 3:30 hrs by day is to be undertaken.

6.7.1.2 Using FFS B/C/D (FAA Designation) or on a FFS Level B/C/D (EASA Designation). At least six hours of training including minimum two hours on helicopter by day is to be undertaken.

- 6.7.1.3 Using FTD 6/7 (FAA Designation) or on FTD 2/3 (EASA Designation). At least six hours of training including minimum four hours on helicopter by day is to be undertaken.

6.8 IR Training/Extension.

- 6.8.1 Instrument Flying training as specified by the ATO / the OEM syllabus or at least 1:00 hour (whichever is more) shall be carried out using the helicopter or FFS level B/C/D or FTD level 6/7 (FAA Designation) or on a FFS Level B/C/D or FTD 2/3 (EASA Designation), by pilots previously holding an IR. This will be followed by IR Check of minimum 1:00 hour with a TRE/TRI, following which the pilot shall then apply to the DGCA for IR endorsement on licence, with requisite documents.

- 6.8.2 All pilots who have not held an IR previously are to have minimum IF experience as stipulated in Section P of Schedule II, and have minimum 5:00 hours of IF training in last six months on helicopter type/FSTD, followed by an IRT of minimum 1:00 hour with a TRE. Such IF training shall be conducted in dedicated training sorties, and shall not be conducted in sorties with passengers on board. The pilot shall then apply to DGCA for IR endorsement, with requisite documents.

- 6.9 **Types of Helicopters.** A table of all helicopters currently being operated in India giving their type and variants, is available for ready reference as an Ops Circular.

7. DIFFERENCES TRAINING / FAMILIARISATION TRAINING

- 7.1 An operator shall ensure that a flight crew member completes Differences Training/Familiarisation Training (as applicable), which requires additional knowledge and training on an appropriate training device or on the helicopter, when operating another variant of a helicopter of the same type.

- 7.2 Differences training on the variant shall be carried out by a TRE/TRI/SFI and satisfactory completion shall be endorsed in the Pilot's Log Book. There shall be no requirement of obtaining separate endorsements of variants of the same type of helicopter, as long as the type is endorsed on the licence. The syllabus and quantum of Ground and Flying training shall be as approved by the OEM / as approved by the regulatory authority for the ATO, or in absence of both as approved by DGCA on a case to case basis.

- 7.3 The experience attained on one variant shall be valid on the other variants of the same type of helicopter as long as Differences Training has been successfully completed. Policy for utilisation of the pilot on different variants of the same type shall be clearly outlined in the Operations Manual.

8. SPECIAL VFR TRAINING AND QUALIFICATIONS

- 8.1 **Experience.** The pilot authorised to operate Special VFR flight shall have a minimum of 500 hours on helicopters out of which minimum 100 hours should be as PIC. When operating with two pilots under Special VFR, only the PIC needs to be Special VFR qualified.

- 8.2 **Ground Training and Test.**

8.2.1 **Ground Training.** Ground Training covering the under mentioned topics shall be undertaken prior to undergoing the flying training/check. This ground training is required to be undertaken only once, prior to initial Special VFR clearance.

8.2.1.1 Use of nav aids.

8.2.1.2 Use of landing aids.

8.2.1.3 Spatial disorientation.

8.2.1.4 CFIT, Situational awareness.

8.2.1.5 Adverse Weather Phenomena.

8.2.1.6 ATS in controlled airspace.

8.2.2 **Ground Test.** The ground training shall be followed by a written test; minimum pass percentage marks for the written test shall be 70%.

8.3 **Flying Training.** The flying training will cover the Departure and Arrival procedures in controlled airspace. The duration of the flying training shall not be less than 1:00 hr and shall be conducted only on a helicopter and in a control zone to cover all aspects of flying training.

8.4 **Authorisation for Training.** Ground training and written test shall be conducted by a DGCA approved GTO/ATO. The Special VFR flying training shall be conducted by a DGCA approved TRI/TRE. On successful completion of Ground Training and Flying Training, TRI/TRE shall certify in the pilot's logbook that he is fit to operate Special VFR flights.

8.5 **Validity.** The one-time authorisation to operate Special VFR flights shall be valid from the date of the flying training conducted by the TRI/TRE, thereafter no yearly ground/flying recurrent training is required.

8.6 **Privileges.** Pilots authorised to operate Special VFR flights shall remain clear of clouds and in sight of the surface.

Note : Pilots who have held Instrument Rating or TRE/TRI or Flight Instructor Rating / Assistant Flight Instructor Rating, are not required to undergo the ground / flying training to operate Special VFR. This authorisation shall be considered valid for all types and variants of helicopters that may be endorsed on the pilot's licence.

9. RECURRENT CHECKS AND TRAINING

9.1 **General Conditions.** An operator shall ensure that:

9.1.1 Each flight crew member undergoes recurrent training and checks and that all such training and checks are relevant to the type or variant of helicopter on which the flight crew member operates.

9.1.2 Recurrent training is conducted by the following personnel:

9.1.2.1 Operator's Ground refresher training — by suitably type qualified TRE/TRI/Check Pilot.

- 9.1.2.2 Flight Simulation Training Device (FSTD) / Helicopter training — by a SFI for FSTD, Check Pilot/TRI/TRE for helicopter, as applicable.
- 9.1.3 All flying training/checks will be carried out by DGCA approved TRI/TRE only. Line checks and 'Under Supervision' flying may be carried out by a Check Pilot.
- 9.1.4 In case a pilot is not current on type, he/she would be required to carry out recent experience as per Para 10.3 first, prior to undertaking Role recent experience flying. Role Checks for two special operations will not be combined together, e.g. HHO check and ELO check cannot be carried out as one check.
- 9.1.5 The services of a pilot not in the employment of the operator may be sought only vide provisions of Para 7.5 of CAR Section 3 Series C Part III. It will be ensured that the pilot is current for flying/special ops/environment in which he/she is to fly and be familiarized with Company's SOPs and Operations Manual before commencing flying.
- 9.1.6 One time sanction to a company pilot for Training/Check/Test will be an exception rather than a rule, and only with prior approval of DGCA.
- 9.1.7 All operators must ensure that their DGCA approved Check Pilots, TRIs and TREs are made available for Training/Checking/Testing of pilots on priority, when required.
- 9.1.8 In case a pilot fails to display satisfactory performance, during Training/Check/Test sortie(s), or in case irregularities are noticed in documentation, the same will be reflected in the Sortie/Test report and brought to the notice of the operator and FSD (Helicopters), DGCA immediately for necessary action/decision.
- 9.2 **Recurrent Checks.**
- 9.2.1 **Pilot's Proficiency Check (PPC).**
- 9.2.1.1 An operator shall ensure that each flight crew member undergoes PPC to demonstrate his/her competence in carrying out normal, abnormal and emergency procedures on each type of helicopter. PPCs shall be required to be carried out on each type and not each variant. When an operator schedules flight crew on different types of helicopters even with similar characteristics in terms of operating procedures, systems and handling, the PPC for each type shall be carried out separately without any credits for the other rated type. The validity of a PPC for Pilots undertaking VFR operations shall be 12 months. The validity of a PPC for Pilots undertaking IFR operations shall be 06 months. An instrument rating test / renewal check may substitute as a PPC on type, however its validity as a PPC shall be for a period of 6 months. In the case of renewal, the period of validity shall commence from the date of expiry of the previous validity provided that the check has been carried out within two months preceding the date of expiry. Any two such checks which are similar and which occur within a period of four consecutive months shall not alone satisfy this requirement.
- 9.2.1.2 The PPC shall not be carried out in a flight with passengers on board, and the minimum duration shall be 0:45 hr, when flown on the helicopter it shall be carried out at a controlled airfield/heliport. PPC may be combined with IR Check, in which case the total duration shall not be less than 1:15 hrs when flown on a helicopter and 2:00 hrs when flown in a FFS Level B/C/D or FTD 6/7 (FAA Designation) or on a FFS Level B/C/D or FTD 2/3 (EASA Designation), in such a case all mandatory exercises as mentioned in CA 44 and CA 45 shall be completed. Pilot

proficiency checks shall include the manoeuvres as stipulated in CA 44, and it shall be ensured that all applicable items in Para 8 of the form are completed in a three year checking cycle (either during PPCs on the helicopter or during recurrent training on simulators). Validity for first PPC shall be counted with effect from the date of skill test (Day/Night whichever is later) undertaken for endorsement of type rating. In case the PPC expires then the same may be renewed by undergoing a fresh PPC, however the pilot is not to undertake any flying either as PIC or Co-pilot during such period of expiry, further recent experience requirements as per Para 10.3 may also apply, if a break in flying exists.

9.2.2 Instrument Rating (IR). An operator shall ensure that:

- 9.2.2.1 Each flight crew member undergoes IR checks, if applicable to the type of helicopter being flown, to demonstrate his/her competence in carrying out normal, abnormal and emergency procedures under instrument flying conditions. An IR Test for initial issue or IR Check for renewal of IR may be carried out on a helicopter or FFS Level B/C/D or FTD 6/7 (FAA Designation) or on a FFS Level B/C/D or FTD 2/3 (EASA Designation), specific to type simulator. When an operator schedules flight crew on several variants of the same type of helicopter, the IR Check done on a specific type shall be valid for all its variants. When an operator schedules flight crew on different types of helicopters, the IR Check for each type shall be carried out separately without any credits for each rated type. The IR Check shall not be carried out with passengers on board.
- 9.2.2.2 IR Check, when being carried out on a helicopter, shall be conducted by a TRE/TRI holding a valid IR, at an adequate aerodrome/heliport with appropriate landing aids. A minimum of two instrument approach procedures, preferably using two different navigational aids shall be carried out in an IR Check, and the minimum duration of the check shall be 1:00 hour. IR Check may be combined with PPC, in which case the total duration shall not be less than 1:15 hours when flown on a helicopter and 2:00 hours when flown in a FFS Level B/C/D or FTD 6/7 (FAA Designation) or on a FFS Level B/C/D or FTD 2/3 (EASA Designation).
- 9.2.2.3 The instrument rating shall be valid for a period of twelve months from the date of the satisfactory completion of the instrument rating test /renewal check. In the case of renewal, the period of validity of the rating shall be for a period of twelve months which shall commence from the date following the date of expiry of the previous validity subject to the condition that the check for instrument rating has been conducted within two months preceding the date of expiry, and all other requirements for renewal are met. In cases other than those referred above, the validity of renewal of the rating shall commence from the date of the instrument rating test/renewal check.
- 9.2.3 **Line Check.** An operator shall ensure that each flight crew member undergoes a seat- specific Line Check once a year on each type flown; this check shall normally be carried out in revenue flight. Line Check shall comprise a check in the terrain/sector that the pilot is flying in i.e Hill Flying/ Offshore Flying. The Line Check for Hill Flying shall be for a minimum duration of 0:45 hrs with minimum 03 Take-offs and landing patterns at minimum one helipad at/above 4000 Feet AMSL. Flight crew members operating to helipads at/above 10,000 feet AMSL shall have undergone the yearly Line Check (Hill Ops) at a helipad situated at/above 10,000 feet AMSL with minimum 03 Take-offs and landing patterns, and this shall satisfy the requirement for a Line Check at/above 4000 Ft AMSL. Line Check for Offshore shall be flown for a minimum duration of 0:45 hrs with landing at minimum one helideck. Pilots only flying in plains terrain shall undergo the line check in a similar manner comprising a route of minimum 100 Nautical miles. In the case of renewal, the period of validity shall commence from the date of expiry of

the previous validity provided that the check has been carried out within two months preceding the date of expiry.

9.2.4 **Role Check.** An operator shall ensure that each flight crew member undergoes a Role Check once a year on each type flown. This check shall be flown for ELO / HHO and shall be flown in a non-revenue sortie, and separately for each type flown by the pilot. The minimum duration of a Role Check shall be 0:45 hrs and a minimum of two cycles of HHO / operations of ELO shall be carried out. Role Check, when being carried out on a helicopter, shall be conducted by a TRE/TRI holding valid recent experience in the specific role i.e. HHO / ELO. A Role Check may be carried out in a FFS Level B/C/D or FTD 6/7 (FAA Designation) or on a FFS Level B/C/D or FTD 2/3 (EASA Designation) specifically approved for the same, when flown in a simulator the minimum duration shall be 1:00 hr. In the case of renewal, the period of validity shall commence from the date of expiry of the previous validity provided that the check has been carried out within two months preceding the date of expiry.

9.2.5 An operator shall ensure that when passengers are intended to be carried at night, the PIC holding CPL(H) shall have carried out at least ten take offs and landing patterns by night, and the co-pilot holding CPL(H) shall have carried out at least three take offs and landing patterns by night, in the last six months immediately preceding the date of intended flight. PIC holding ATPL(H) shall have carried out at least five take offs and landing patterns by night, and co-pilot holding ATPL(H) shall have carried out at least three take offs and landing patterns by night, in the last six months immediately preceding the date of intended flight.

9.3 Recurrent Training

9.3.1 **Flying Recurrent Training.** All pilots shall undergo recurrent training at least once in two years, on a FFS Level B/C/D or FTD 6/7 (FAA Designation) or on a FFS Level B/C/D or FTD 2/3 (EASA Designation). Instrument Flying (only for IR pilots) and the practice of those parts of emergencies such as touchdowns in engine failure, hydraulic failure, multiple system failures, tail rotor failure/control failure, loss of tail rotor effectiveness (LTE), Vortex Ring etc which cannot be practiced in actual flying shall be carried out. All major failures of systems and associated procedures shall be covered in a period of two years.

9.3.1.1 The minimum duration of this training shall be 8:00 hrs for IR pilots. This duration shall include both Instrument Flying & Emergencies.

9.3.1.2 The minimum duration of this training shall be 4:00 hrs for non IR pilots for practice of emergencies. For pilots flying SE helicopters this duration shall be 3:00 hrs.

9.3.1.3 In case a specific to type FFS Level B/C/D or FTD 6/7 (FAA Designation) or on a FFS Level B/C/D or FTD 2/3 (EASA Designation), is not available anywhere in the country or abroad for a particular type, recurrent training may be flown on the helicopter for the same duration as specified in Para 9.3.1.1 and 9.3.1.2, after prior approval of DGCA.

9.3.2 **Ground Recurrent Training.** The training placed at Module I may be undertaken with a type trained TRE/TRI/Check Pilot/ATO. Training placed at Module II may be undertaken with a TRE/TRI/Check Pilot/SEP Instructor. Training placed at Module III shall be undertaken at an ATO. Training placed at Module IV may be undertaken with a DGCA approved CRM Instructor/ATO.

Module	Training	Periodicity	Duration	Topics to be covered
I	Technical and Performance Refresher	Once a year	08 Hours	Rotorcraft Flight Manual, Helicopter Systems and performance, Load and Trim Sheet Calculations, Type emergencies and recovery actions, and any changes to Operations Manual / any changes to Regulations (changes to Operations Manual may be undertaken with company Chief Pilot/Director Operations in case TRE/TRI/Check Pilot conducting the training is from a different operator).
II	SEP Training	Once a year	03 Hours	Safety and Emergency Procedures Training on the helicopter shall include : (a) Actual donning of life jackets/breathing equipment, where fitted. (b) Actual handling of fire extinguishers. (c) Location and use of all emergency and safety equipment. (d) Instructions on the location and use of all types of exits. (e) Once every three years actual operation of fire extinguishers and emergency exits, actual fire-fighting using eqpt representative of that carried in the helicopter on an actual or simulated fire (except with Halon extinguishers), shall be practiced by all crew. (f) In addition, one time training for Cardio Pulmonary Resuscitation (CPR) shall be conducted for all crew, and qualified medical personnel shall impart such training.
III	Specific Ground Training	Once a year	04 Hours	Adverse Weather, Effects of Monsoons, Disorientation, Situational Awareness & CFIT.
IV	CRM Training	Once a year	02 Hours	As applicable
V	AVSEC Training	Validity as applicable	As Applicable	
	DGR Training	Validity as mentioned in CAR Section 11, Series C, Part I.	As Applicable	

9.3.3 Helicopter Underwater Escape Training (HUET). All aircrew undertaking offshore operations shall undergo HUET once every three years. If the training is conducted within three months prior to the expiry of the three years period, the next HUET must be completed within three years of the original expiry date of the previous HUET.

10. RECENT EXPERIENCE

10.1 An operator shall ensure that the following is applied to :

10.1.1 All pilots holding current DGCA licences and who need to exercise the privileges of a helicopter rating endorsed in their license but do not meet the prerequisites for continued exercise of privileges of the rating.

10.1.2 All pilots who need to exercise the privileges of a helicopter/additional helicopter rating endorsed in the license after commencing helicopter training/Flight Simulation Training Devices (FSTD) training or authorized to fly more than one type of helicopter.

10.2 General Conditions.

10.2.1 It would be operator's responsibility to ensure that the pilots flying their helicopters meet all recent experience requirement(s).

10.2.2 All ground refresher training and flying checks carried out must be entered in the pilot's log book by the Check Pilot/TRI/TRE and record maintained by the Operator.

10.3 Recent Experience Requirements (on type).

Break in Flying	Technical and Performance Refresher	Flying training with TRE/TRI on Helicopter <u>OR</u> on FFS Level B/C/D or FTD 6/7 FAA Designation, FFS Level B/C/D or FTD 2/3 EASA Designation	Prior to SPO (As PIC with co-pilot)
Day Flying – Helicopters with AUW <= 5700 kg			
90 days to less than One year	-	3TOL with experienced co-pilot without passengers on board 0:45 hr (when in FSTD same may be achieved in 01 session, Total 0:45 hr)	-
1 year to less than 3 years	8:00 hrs	Dual 0:45 hr and Skill Test (3TOL) 0:45 hr (when in FSTD same may be achieved in 02 sessions, Total 1:30 hr)	1:00
3 years to less than 7 years	12:00 hrs	Dual 1:30 hr and Skill Test (3TOL) 0:45 hr (when in FSTD same may be achieved in 03 sessions, Total 2:15 hr)	3:00
7 years and more	16:00 hrs	Dual 2:00 hr and Skill Test (3TOL) 0:45 hr (when in FSTD same may be achieved in 04 sessions, Total 3:00 hr)	5:00
Day Flying – Helicopters with AUW > 5700 kg			
90 days to less than One year	-	3TOL with experienced co-pilot without passengers on board 0:45 hr (when in FSTD same may be achieved in 01 session, Total 0:45 hr)	-
1 year to less than 3 years	8:00 hrs	Dual 1:30 hr and Skill Test (3TOL) 0:45 hr (when in FSTD same may be achieved in 03 sessions, Total 2:15 hr)	-
3 years to less than 7 years	12:00 hrs	Dual 2:00 hr and Skill Test (3TOL) 0:45 hr (when in FSTD same may be achieved in 04 sessions, Total 3:00 hr)	-
7 years and more	16:00 hrs	Dual 3:00 hr and Skill Test (3TOL) 0:45 hr (when in FSTD same may be achieved in 05 sessions, Total 3:45 hr)	-
Night Flying – All Helicopters			
180 days to less than 1 year	-	3TOL with experienced co-pilot without passengers on board 0:45 hr (when in FSTD same may be achieved in 01 sessions, Total 0:45 hr)	-
1 year to less than 3 years	As conducted above for day.	Dual 0:45 hr and Skill Test (3TOL) 0:45 hr (when in FSTD same may be achieved in 02 sessions Total 1:30 hr)	-
3 years to less than 7 years	As conducted above for day.	Dual 1:00 hr and Skill Test (5TOL) 1:00 hr (when in FSTD same may be achieved in 03 sessions Total 2:15 hr)	-
7 years and more	As conducted above for day.	Dual 2:00 hr and Skill Test (5TOL) 1:00 hr (when in FSTD same may be achieved in 04 sessions Total 3:00 hr)	-

Notes.

- (a) "TOL" means 'Take-offs & Landings', "SPO" means 'Single Pilot Operations'.
- (b) Training sorties, PPC, IR Check may be carried out by TRE/TRI.
- (c) Line Check may be carried out by TRE/TRI/Check Pilot.
- (d) Skill Tests/IRT for initial issue of IR shall be carried out by TRE only.
- (e) Technical and Performance Refresher consisting of normal and emergency procedures shall be carried out by TRE/TRI/Check Pilot.
- (f) Recent experience by Day shall be carried out before commencing recent experience by Night.
- (g) A skill test may be carried out in Full Flight Simulator (FFS) Level C/D (FAA/EASA Designation) or a Dual Qualification Simulator FFS B and FTD 3 (EASA Designation).
- (h) An experienced co-pilot as referred to in this para, shall be a pilot with 50 hrs PIC on type.
- (i) Recurrent checks shall be conducted after the recent experience/recurrent training on type has been achieved.

10.4 The provisions of Para 10.3 shall not be applicable in case a pilot has not exercised the privileges of his licence for a period of 7 years or more on helicopters, in such a case the pilot shall undergo the training required for initial type rating.

11. TYPE SPECIFIC PILOT QUALIFICATIONS AND RECURRENT TRAINING REQUIREMENTS FOR SPECIAL ROLES

(All training requirements and checks mentioned below shall be completed separately on each specific type, and DGCA approved TRE/TRI/Check Pilots shall be role qualified and current on type before undertaking training/tests/checks in special roles)

11.1 Hill/Mountain Flying Operations.

11.1.1 **Training Requirements to upgrade to PIC in Hills.** If pilot has no previous experience in Hill Flying, then on completion of training mentioned below, the pilot shall thereafter operate as co-pilot for a minimum duration of 1 year and 100 hrs, whichever is later. Previous experience in Hills is defined as PIC experience on any helicopter in Hill Flying. Thereafter he shall undergo a Hill Ops Release Check with TRE/TRI before being cleared to operate as PIC in Hills. Flying training mentioned in the table below may be carried out either on the helicopter or on a FFS Level B/C/D or FTD 6/7 (FAA Designation) or on a FFS Level B/C/D or FTD 2/3 (EASA Designation) which is cleared for hill operations training. Upto 50% of flying training may be carried out on FFS B/C/D or FTD 6/7 (FAA Designation) or on a FFS Level B/C/D or FTD 2/3 (EASA Designation) specifically cleared for the purpose. However, Hill Ops Release Checks shall be carried out only on the helicopter and minimum 03 landings shall be carried out on at least 03 different helipads at/above 4000 Feet AMSL. The flying training and recent experience mentioned below may be carried out in revenue flights.

Total Flying Hours	Experienced in Hills/Mtns	No previous experience
Less than 1000 hrs total flying experience including 250 hrs PIC on helicopters.	Ground Refresher 2:00 hrs + 2 hrs Flying training with TRE/TRI + Hill Ops Release Check 0:45 hrs.	Ground Training + 15 hrs Flying training with TRE/TRI + Hill Ops Release Check 0:45 hrs.
1000 hrs and above total flying experience including 250 hrs PIC on helicopters.	Ground Refresher 2:00 hrs + 1 hr flying training with TRI/TRE + Hill Ops Release Check 0:45 hr.	Ground Training + 10 hrs Flying training with TRE/TRI + Hill Ops Release Check 0:45 hrs.

11.1.2 Prior to undertaking operations to helipads located at or above 10,000 ft AMSL, all pilots shall undergo minimum 01 hr of flying training comprising minimum 05 take-offs and landing patterns, followed by a release check of 0:45 hr duration comprising minimum 03 take-offs and landing patterns, at helipads at or above 10,000 ft AMSL. The training and release check for operations at or above 10,000 ft AMSL shall be undertaken in addition to, and only after the compliance of requirements as mentioned in table of Para 11.1.1 above. Operator shall ensure that Hill Ops Check is valid prior to nominating a pilot as PIC in hills/mountains. A co-pilot (when required) in Hill Ops shall be a pilot with only a valid endorsement on the type of helicopter flown.

11.1.3 All operations shall be under VFR or Special VFR (if within control zone), except when following an established Instrument Procedure at a designated airport/heliport in such terrain.

11.1.4 **Ground Training.** The ground training specific to hill/mountain operations, shall be conducted for a duration of at least 4 hours at a DGCA approved ATO or by a TRE/TRI/Check Pilot as follows:

11.1.4.1 Density altitude and performance consideration.

11.1.4.2 Effects of decreased air density on engine and airframe.

11.1.4.3 Type performance – Rotorcraft Flight Manual.

11.1.4.4 Physiological Effects - Lack of oxygen and external horizon.

11.1.4.5 Mountain winds- Convection and air mass stability, wind pattern across prominent features of rounded shape and sharp contours, standing waves, rotor streaming turbulence, ridges, conical hills and valleys.

11.1.4.6 Transit flying - Pre-flight planning, blade stall, engine failure, wind assessment en-route.

11.1.4.7 Actions when caught in a down draught, ridge crossing and valley flying.

11.1.4.8 Wind assessment.

11.1.4.9 Meteorological peculiarities of the area of operations and its effect on helicopter operations.

11.1.4.10 Winter operations including Helicopter Icing.

11.1.4.11 High altitude operations and effects on helicopter performance.

11.1.5 **Recent Experience.** Undermentioned training and checks shall be flown separately for recent experience at/above 4000 Ft AMSL or at/above 10,000 Ft AMSL. However if flown at/above 10,000 Ft AMSL the same shall suffice for at/above 4000 Ft AMSL.

11.1.5.1 A previously cleared pilot who has not carried out Hill/Mountain Flying in the last 12 months preceding the date of operations shall fly a Hill Ops training sortie of 0:45 hr followed by Check sortie of minimum 0:45 hr duration, with a TRE/TRI before being permitted for independent operations.

- 11.1.5.2 A previously cleared pilot who has not carried out Hill/Mountain Flying in the last 24 months or more shall undergo ground refresher of 2:00 hrs duration followed by training flight with TRE/TRI of 1:00 hr, followed by a Hill Ops Check of 0:45 hrs on the helicopter with a TRE/TRI.

11.2 Offshore Operations

- 11.2.1 **Ground Training.** A capsule covering aspects related to offshore operations of duration 2:00 hrs conducted by a DGCA approved and role qualified TRI/TRE/Check Pilot.

- 11.2.2 **Co-Pilot Flying Training.** Before being a co-pilot in offshore operations, a pilot shall meet the following pre requisite requirements:-

- 11.2.2.1 The pilot should have undergone a type rating course and 20 hours instrument flying experience, simulated or actual.

- 11.2.2.2 Should undertake Offshore Training with a TRE/TRI consisting of minimum 15 hrs of training flying, consisting of minimum 10 landings on fixed platforms/jack up rigs, and two landings on floaters, with a role qualified TRE/TRI. This training and the check flight mentioned in Para 11.2.2.3 may be undertaken in revenue flights. For pilots previously cleared (on a different type) as co-pilots in offshore operations, the requirement shall be a minimum of 1:00 hr of flying training, and a check sortie of 1:00 hr with a role qualified TRE/TRI.

- 11.2.2.3 Before being released as co-pilot for offshore operations, a check flight of minimum 1:00 hour shall be conducted by a role qualified TRE/TRI. The check shall be recorded in the pilot log book and training records. Thereafter he shall undertake minimum 25 hrs of supervised line flying with a TRE/TRI/Check Pilot, before commencing flying with independent PICs.

- 11.2.2.4 Thereafter the pilot shall continue to fly as a co-pilot in offshore duties until he reaches the level defined in Para 11.2.3.4 below, in order to be eligible for pilot-in-command training at the operator's discretion, taking into account his previous pilot experience.

- 11.2.2.5 In any case, he shall not have less than 1000 Hrs Helicopter total time before he is cleared as PIC in offshore operations.

11.2.3 Offshore Command Training

- 11.2.3.1 The flying training mentioned below and at Para 11.2.3.2 may be carried out in revenue flights. Before being cleared as PIC in offshore operations, the pilot under training must have carried out a minimum of 20 hrs of training flying including minimum 15 landings on fixed platforms/jack up rigs, and five landings on floaters, with a role qualified TRE/TRI.

- 11.2.3.2 For pilots previously cleared (on a different type) as PIC in offshore operations meeting all requirements stated in Para 11.2.3.4 below, the requirement shall be a minimum of 5:00 hrs of flying training, and a check sortie of 1:00 hr with an examiner for clearance as PIC in offshore.

11.2.3.3 An independent check with an examiner shall be conducted, and the pilot shall be cleared to operate as PIC in offshore operations, if found satisfactory. The examiner shall make an entry in the pilot's log book to this effect. In case floaters are not available the pilot may be cleared for offshore operations, however he shall not be cleared for floaters without undergoing the mandatory 5 landings with a TRE/TRI and subsequently another check sortie with a TRE.

11.2.3.4 Minimum Requirements for Offshore Command Training

Less Than 1000 Hrs on Helicopters and 100 Hrs on ME Helicopters	1000 Hrs and above on Helicopters and 500 Hrs on ME Helicopters
750 Hrs Co-pilot multi offshore 200 Hrs on type	300 Hrs Co-pilot multi offshore, 100 Hrs on type
Instrument rating, 100 Hrs IMC	Instrument rating, 100 Hrs IMC
+ 1 Monsoon (on any helicopter type in offshore environment)	+ 1 Monsoon (on any helicopter type in offshore environment)

11.2.3.5 Line check of a pilot shall be carried out for the capacity in which he is regularly flying.

11.2.4 **Recent Experience.**

11.2.4.1 A previously cleared pilot who has not conducted offshore operations in the last 12 months preceding the date of operations shall fly a sortie of minimum duration of 1:00 hrs with landing at a helideck with a TRI/TRE before being permitted for independent operations. Alternately this sortie may be performed in a FFS Level B/C/D or FTD 6/7 (FAA Designation) or on a FFS Level B/C/D or FTD 2/3 (EASA Designation) approved for the same, with a SFI.

11.2.4.2 A previously cleared pilot who has not carried out offshore operations in the last 24 months or more shall undergo one sortie with a TRI/TRE of 1:00 hrs consisting of landing on a helideck, alternately this sortie may be performed in a FFS Level B/C/D or FTD 6/7 (FAA Designation) or on a FFS Level B/C/D or FTD 2/3 (EASA Designation) approved for the same, with a SFI. This shall be followed by a Check Flight on the helicopter with an examiner, of minimum duration of 0:45 hrs with landing on a helideck.

11.3 **External Load Operations (ELO)**

11.3.1 **Training Requirements.**

Total Flying Hours	Experienced in ELO	No previous experience
Less than 1000 hrs total flying experience with less than 300 hrs PIC on type.	2 hrs Dual training with TRE/TRI + ELO Check 0:45 hrs	Ground Training + 3 hrs Dual training with TRE/TRI + ELO Check 0:45 hrs
1000 hrs and above total flying experience including more than 300 hrs PIC on type.	1 hr flying training with TRI/TRE + ELO Check 0:45 hr.	Ground Training + 1 hr Dual training with TRE/TRI + ELO Check 0:45 hrs

Note : Planning figures - Three ELO lifts per hour of flying training and two lifts in an ELO Check.

11.3.2 Operator shall ensure that ELO Check is valid prior to nominating a pilot as PIC for the ELO task.

11.3.3 A pilot shall have at least 500 hrs PIC on type (if not previously experienced in ELO) or 100 hrs PIC on type (if previously experienced in ELO) prior to being nominated PIC for an ELO task.

11.3.4 All ELO operations shall be under VFR or Special VFR (within control zone).

11.3.5 **Ground Training.** The ground training specific to ELO, where applicable, shall be conducted for a duration of at least 4 hours at a DGCA approved training facility or by a TRE/TRI/Check Pilot, is as follows: -

11.3.5.1 Aerodynamic considerations.

11.3.5.2 Knowledge of sling / swing equipment, its operation and limitations given in the Rotorcraft Flight Manual / Operations Manual.

11.3.5.3 Preparation of load-sheet, rigging or its attachments.

11.3.5.4 Emergencies for the particular type of operations.

11.3.5.5 Fitting and use of the equipment.

11.3.5.6 Preparing the helicopter and load for ELO.

11.3.5.7 Normal and emergency procedures by day and, when required, by night.

11.3.5.8 Crew co-ordination concept specific to ELO.

11.3.5.9 Practice of ELO procedures.

11.3.5.10 The dangers of static electricity discharge.

11.3.6 **Recent Experience.**

11.3.6.1 A previously cleared pilot who has not carried out ELO Flying in the last 12 months preceding the date of operations shall fly an ELO Check sortie of minimum 0:45 hr duration, with a TRE/TRI before being permitted for independent operations.

11.3.6.2 A previously cleared pilot who has not carried out ELO Flying in the last 24 months or more shall undergo one dual flight with TRE/TRI of 1:00 hr, followed by an ELO Check of 0:45 hrs on the helicopter with a TRE/TRI, prior to being permitted independent operations.

11.4 **Helicopter Hoist Operations (HHO)**

11.4.1 **Training Requirements.**

Total Flying Hours	Experienced in HHO	No previous experience
Less than 1000 hrs total flying experience with less than 300 hrs PIC on type.	2 hrs Dual training with TRE/TRI + HHO Check 0:45 hrs	Ground Training + 3 hrs Dual training with TRE/TRI + HHO Check 0:45 hrs
1000 hrs and above total flying experience including more than 300 hrs PIC on type.	1 hr flying training with TRI/TRE + HHO Check 0:45 hrs.	Ground Training + 1 hr Dual training with TRE/TRI + HHO Check 0:45 hrs.

11.4.2 Operator shall ensure that HHO Check is valid prior to nominating a pilot as PIC for the HHO task.

11.4.3 A pilot shall have at least 500 hrs PIC on type (if not previously experienced in HHO) or 100 hrs PIC on type (if previously experienced in HHO) prior to being nominated PIC for an HHO task.

11.4.4 All HHO operations shall be under VFR or Special VFR (within control zone).

11.4.5 Hoist Operator shall be experienced and trained as per the company's operations manual.

11.4.6 **Ground Training.** The ground training specific to HHO, where applicable, shall be conducted for a duration of at least 4 hours at a DGCA approved training facility or by a TRE/TRI/Check Pilot, is as follows: -

11.4.6.1 Aerodynamic considerations.

11.4.6.2 Knowledge of hoist equipment, its operation and limitations given in the operation manual.

11.4.6.3 Preparation of load-sheet, rigging or its attachments.

11.4.6.4 Emergencies for the particular type of operations.

11.4.6.5 Operation peculiarities of different terrains, e.g. mountain, offshore, jungle, desert, etc.

11.4.6.6 Fitting and use of the hoist;

11.4.6.7 Preparing the helicopter and hoist equipment for HHO;

11.4.6.8 Normal and emergency hoist procedures by day;

11.4.6.9 Crew co-ordination concept specific to HHO;

11.4.6.10 Practice of HHO procedures; and

11.4.6.11 The dangers of static electricity discharge.

11.4.6.12 Normal and simulated emergency HHO procedures; and

11.4.6.13 Crew co-ordination.

11.4.7 Recent Experience.

- 11.4.7.1 A previously cleared pilot who has not carried out HHO Flying in the last 12 months preceding the date of operations shall fly a HHO Check sortie of minimum 0:45 hr duration, with a TRE/TRI before being permitted for independent operations.
- 11.4.7.2 A previously cleared pilot who has not carried out HHO Flying in the last 24 months or more shall undergo one training flight with TRE/TRI of 1:00 hr, followed by a HHO Check of 0:45 hrs on the helicopter with a TRE/TRI, prior to being permitted independent operations.

- 11.5 **Helicopter Emergency Medical Services (HEMS).** Refer Ops Circular 02 of 2016.

12. REQUIREMENTS FOR FLYING MORE THAN ONE TYPE OF HELICOPTER

- 12.1 **Conditions for all Helicopters.** A pilot may operate more than one helicopter type, subject to the following conditions:
- 12.1.1 The pilot has a valid license for the type(s) of helicopter(s); and
- 12.1.2 The pilot has a minimum of 2,000 hours of flying experience of which not less than 1,000 hours as PIC on helicopters; and
- 12.1.3 50 hours on each type, including minimum three take-offs and landings on type in the last 90 days; and
- 12.1.4 A proficiency check has been conducted on each type and is valid; and
- 12.1.5 Meets the recurrent training requirements on type.
- 12.2 For **Group 2 helicopters**, the following additional requirements apply:
- 12.2.1 Not more than two helicopter types in one duty period; and
- 12.2.2 For all Group 2 helicopters the pilot shall have not less than 50 hours of flying on type before he can fly on another type. This restriction of 50 hours is not applicable for undertaking training flying.
- 12.3 For **Group 3 helicopters**, the following additional requirements apply:
- 12.3.1 Only one type during one duty period; and
- 12.3.2 For all Group 3 helicopters the pilot shall have not less than 50 hours of flying on type before he can fly on another type. This restriction of 50 hours is not applicable for undertaking training flying.
- 12.4 Subject to meeting the requirements as mentioned in Para 12 above, No operator shall permit its flight crew to operate and no flight crew shall operate more than three types of helicopters, of which not more than two types shall be with an AUW above 5700 Kgs.

- 12.5 **Combination of Helicopter and Aeroplane.** A pilot may fly one helicopter type or variant and one aeroplane type irrespective of their Maximum Certified Take-Off Mass (MCTOM) or Maximum Operational Passenger Seating Capacity (MOPSC). In case the helicopter is from Group 3, then the provisions of Para 12.3 above shall also apply.

13 OPEN RATING

- 13.1 **Endorsement of Open Rating on Licence.** The grant of Open Rating on helicopters is governed by Aircraft Rules 1937, extract of which is reproduced below:

- 13.1.1 **Open Rating on CPL(H).** An open rating for all single engine piston type of helicopters having an AUW not exceeding 1500 kg may be granted on CPL(H) if the pilot has completed not less than 1000 hours of flight time including not less than 200 hours as PIC on helicopters and has at least four different types of helicopters entered in the aircraft rating of his licence.

- 13.1.2 **Open Rating on ATPL(H).** An open rating for all types of helicopters having an AUW not exceeding 1500 kg may be granted on ATPL(H) if the pilot has completed not less than 1000 hours of flight time including not less than 500 hours as PIC on helicopters.

- 13.2 **Condition for Exercising Privileges of Open Rating.** Privileges of Open Rating shall be exercised only when the pilot has undergone ground and flight familiarisation with a Flight Instructor (FIR) or a DGCA approved TRE/TRI, and a certificate to this effect is logged by the TRI/TRE in the pilot's Log Book, before he is released to exercise the privileges of his open rating on that type of helicopter.

- 13.3 **Recent Experience.** A pilot exercising the privileges of an Open Rating endorsed on his/her licence shall ensure that he/she has carried out three take-offs and landings on type in the last 90 days. In case this requirement is not met, the pilot shall carry out a familiarisation flight with a qualified PIC who is current on type, before flying as PIC.

14 SINGLE PILOT OPERATIONS

- 14.1 **Minimum Requirements.** Single Pilot operations may be undertaken on helicopters provided the following minimum requirements are met:

- 14.1.1 The helicopter is certificated for single pilot operations.

- 14.1.2 Pilot has minimum PIC experience on type as follows :

- 14.1.2.1 Less than 2000 hrs on helicopters, with 100 hours PIC on type.

- 14.1.2.2 2000 hrs and above on helicopters, with 50 hours PIC on type.

- 14.1.3 In case a pilot is qualified SPO on any type, PIC requirements to qualify SPO on another type shall be half of those mentioned at Para 14.1.2 above.

- 14.2 SPO shall not be undertaken on flights where two-pilot operation has been specified by the DGCA, such as aerial work, VVIP/VIP flights etc.

14.3 SPO qualification on one variant of helicopter shall be considered to meet the requirements on all variants of that type of helicopter, provided the specified Differences Training has been successfully completed and endorsed in the Pilot's Log Book by the TRE/TRI.

14.4 An operator shall specify Company policy on SPO in the Operations Manual.

15. **ELEVATED HELIPAD OPERATIONS**

15.1 Elevated helipad operations may be undertaken by a PIC qualified and current in Hill Operations / Offshore Operations on the particular type / variant of helicopter. When operating with two pilots, only the PIC needs to meet the requirements of this para. In case the PIC is not qualified in Hill / Offshore operations then he/she is to undergo a minimum training of 1:00 hr with a TRE/TRI comprising of minimum 03 take-offs, approach and landing patterns at an elevated helipad before undertaking independent operations.

15.2 **Recent Experience.** Recent experience as PIC as applicable for Hill/Offshore flying is required as recent experience for operations to elevated helipads. For pilots not qualified for Hill/Offshore flying, a minimum of one landing as PIC in the last 06 months is required to undertake operations to elevated helipads.

Sd/-
(Vikram Dev Dutt)
Director General of Civil Aviation

Appendices

- CA 43 - Conversion Report format, with suggested training exercises
- CA 44 - Skill Test / PPC and IR Check by Day/Night on ME/SE helicopters
- CA 45 - Instrument Rating Test/Check for Initial Award/Renewal
- CA 46 - Line Check / Route Check by Day/Night
- CA 47 - Line Check (Offshore)
- CA 48 - Special VFR Training
- CA 49 - Line Check (Hill Ops)
- CA 50 - ELO / HHO / HEMS Role Check
- CA 50(A)- Recurrent Flying Training on Simulators

23

Exercises for Conversion Training

1. General Handling.

- (a) External and pre-start checks and start-up.
- (b) Pick up, sit downs, hover and ground exercises.
- (c) Taxi, take off, circuit and landings including max power take off and steep approach.
- (d) Effects of controls.
- (e) Use of trim, if installed.
- (f) Rudder and turn co-ordination, level medium and steep turns.
- (g) Quick stops.
- (h) Circuit and landings (with and without AFCS).
- (i) Hover and forward speed landing, rough area and slope landings.
- (j) Autorotations flare and recovery.
- (k) In flight emergencies.
- (l) Engine handling (power management).

2. Advanced Training (ME helicopters).

- (a) Performance Class 1 and 2 operations from clear and restricted helipad, circuit and landing with practice single engine (Training / OEI mode).
- (b) Engine failure at TDP and LDP, DPATO and DPBL.
- (c) Practice engine emergencies.

3. Navigation. Use of radio navigation aids including VOR, DME, NDB & GPS.

4. Night Flying.

- (a) Cockpit lighting system familiarization.
- (b) Cockpit light management.
- (c) Start up, hover, taxi & take off.
- (d) Circuit and landing.
- (e) Emergencies by night.
- (f) Landing light management.

 महत्वाङ्कित जयते	DGCA INDIA		CA - 44	
	SKILL TEST / PILOT PROFICIENCY CHECK AND IR CHECK BY DAY / NIGHT MULTI / SINGLE ENGINE HELICOPTERS (Delete as Applicable)		Page 1 of 2	
			Issue 02 Rev 0	23 Feb 2024
Company		Date of check		
Name of Pilot		Date of last check		
Licence No		Block Time (Day/Night)		
Name of Examiner		Location		
Licence No		Type of Helicopter		Regn No :
Briefed for flight. Documents checked and found satisfactory. This check is valid upto (date)				
Signature and Seal of Examiner/Instructor				
S = Satisfactory		U = Unsatisfactory		N = Not Observed
				N/A = Not Applicable
Check		Proficiency		Check
Proficiency				Proficiency
1. Ground Checks		4. Departure		
1.1. Status of recurrent training		4.1 Checks before takeoff		
1.2. Simulator and/or Flying Training (as applicable)		4.2 Normal takeoff (clear heliport/steep angle or max power takeoff)		
1.3. Knowledge of Flight Manual, Limitations and Performance		4.3 Category A takeoff (ME helicopter only), if applicable		
1.4. Knowledge of Flight Planning, Mass & Balance		4.4 Instrument Departure		
1.5. Knowledge of Emergency Procedures		5. Climb and Circuit Flying		
1.6. Knowledge of Air Traffic Procedures		5.1 Maintenance of best climb speed / best rate of climb / climb attitude		
2. Pre Flight Procedures		5.2 Power adjustment during climb		
2.1 Pre flight inspection		5.3 Maintenance of circuit flying parameters		
2.2 Use of checklists		6. Climb and Air Work		
2.3 Engine starting procedures		6.1 Level flight at different speeds, Level medium/Steep turns (10-15°)		
2.4 Navigational systems and radios set-up		6.2 Recovery from unusual attitudes		
2.5 RT procedures		6.3 Execution of holding pattern		
2.6 Use of cockpit lights (night only)		6.4 AFCS handling during air work, if applicable		
3. Hover		7. Approach and Landing		
3.1 Hover over spot		7.1 Normal approach Steep Approach (day only), Use of Idg light on app.		
3.2 Power assurance check, as applicable		7.2 2D Non precision approach (VOR/DME/RNP)		
3.3 Spot turns and sideward/rearward taxi (day only)		7.3 3D Precision approach (ILS)		
3.4 Pickups and sit downs, Quickstops (day only)		7.4 Missed approach		
3.5 Taxi / hover taxi (including use of landing light by night)		7.5 AFCS handling during approach, if applicable		

Check	Proficiency
8. In flight Emergencies (at least three, it shall be ensured that all applicable emergencies listed below are completed in a three year checking cycle.)	
8.1 Engine Fire (call out actions only)	
(a) Engine fire on ground including helicopter evacuation drill	
(b) Engine fire in flight	
8.2 Electrical Fire (call out actions only)	
8.3 Engine Failure (as applicable to type of helicopter) (at least one)	
(a) At Hover	
(b) Shortly before reaching TDP/DPATO (ME only)	
(c) Shortly after reaching TDP/DPATO (ME only)	
(d) In cruise	
(e) Go round / landing – failure before LDP/DPBL (ME only)	
(f) Landing – failure after LDP/DPBL (ME only)	
8.4 Hydraulic Failure	
8.5 Electrical Failure	
8.6 Tail Rotor Failure (FFS only) (call out actions only in helicopter)	
8.7 Tail Rotor Control Failure (day only)	
8.8 Autorotation including planning, entry, execution, flare and recovery	
8.9 AFCS failure, if applicable	
8.10 Undercarriage malfunction, if applicable	
8.11 Any other emergencies, as per Flight Manual	
9. General Flight Ability	
9.1 Radio Communication Procedures	
9.2 Situational Awareness and Decision Making	
9.3 CRM and Crew Coordination	

Result of Check	Passed	Failed
-----------------	--------	--------

<u>Remarks / Comments</u>	
Pilot is / is not recommended for initial award / renewal of Instrument Rating on _____ helicopter. Certified that in accordance with para 9.2.1.2, the sortie has been carried out at _____ (Controlled Airfield/Heliport)	
Pilot's Signature	Examiner's Signature

	DGCA INDIA		CA - 45	
	<u>INSTRUMENT RATING TEST / CHECK</u> <u>BY DAY / NIGHT</u> <u>FOR INITIAL AWARD / RENEWAL OF INSTRUMENT</u> <u>RATING</u>		Page 1 of 2	
			Issue 02 Rev 00	23 Feb 2024
Company		Date of check		
Name of Pilot		Date of last check		
Licence No		Block Time (Day/Night)		
Name of Examiner		Location		
Licence No		Type of Helicopter		Regn No :
Briefed for flight. Documents checked and found satisfactory. This IR Test/Check is valid upto (date)				
Signature and Seal of Examiner/Instructor				
S = Satisfactory		U = Unsatisfactory		N = Not Observed
N/A = Not Applicable				
Check		Proficiency		Check
				Proficiency
1. Ground Checks		3. Hover, Taxi and Departure		
1.1. Status of recurrent training		3.1 Hover over spot and power assurance check		
1.2. Simulator and/or Flying Training (as applicable)		3.2 Taxi / hover taxi (including use of landing light by night)		
1.3. Knowledge of Flight Manual, Limitations and Performance		3.3 Instrument Departure		
1.4. Knowledge of Flight Planning, Mass & Balance		4. Climb and Air Work		
1.5. Knowledge of Emergency Procedures		4.1 Maintenance of V _y and power adjustment during climb.		
1.6. Knowledge of Air Traffic Procedures		4.2 Recovery from unusual attitudes		
2. Pre Flight Procedures		4.3 Execution of holding pattern		
2.1 Pre flight inspection		4.4 AFCS handling during air work, if applicable		
2.2 Use of checklists		5. Approach and Landing		
2.3 Engine starting procedures		5.1 2D Non precision approach (VOR/DME)		
2.4 Navigational systems and radios set-up		5.2 3D Precision approach (ILS)		
2.5 Departure Briefing and RT procedures		5.3 Missed approach		
2.6 Use of cockpit lights (night only)		5.4 AFCS handling during approach, if applicable		

Check	Proficiency
6. In flight Emergencies (at least three)	
6.1 Engine Fire (call out actions only)	
(a) Engine fire on ground including helicopter evacuation drill	
(b) Engine fire in flight	
6.2 Electrical Fire (call out actions only)	
6.3 Engine Failure (as applicable to type of helicopter) (at least two)	
(a) At Hover	
(b) Shortly before reaching TDP/DPATO (ME only)	
(c) Shortly after reaching TDP/DPATO (ME only)	
(d) In cruise	
(e) Go round / landing – failure before LDP/DPBL (ME only)	
(f) Landing – failure after LDP/DPBL (ME only)	
6.4 Hydraulic Failure	
6.5 Electrical Failure	
6.6 Tail Rotor Failure (FFS only) (call out actions only in helicopter)	
6.7 Tail Rotor Control Failure (day only)	
6.8 Autorotation including planning, entry, execution, flare and recovery	
6.9 AFCS failure, if applicable	
6.10 Undercarriage malfunction, if applicable	
6.11 Any other emergencies, as per Flight Manual	
7. General Flight Ability	
7.1 Radio Communication Procedures	
7.2 Situational Awareness and Decision Making	
7.3 CRM and Crew Coordination	

Result of Check	Passed	Failed
-----------------	--------	--------

<u>Remarks / Comments</u>	
Pilot is / is not recommended for initial award / renewal of Instrument Rating on _____ helicopter.	
Pilot's Signature	Examiner's Signature

	DGCA INDIA		CA - 46	
	<u>LINE CHECK / ROUTE CHECK / BY DAY / NIGHT</u> <u>MULTI / SINGLE ENGINE HELICOPTERS</u>		Page 1 of 2	
			Issue 02 Rev 00	23 Feb 2024
Company		Date of check		
Name of Pilot		Date of last check		
Licence No		Block Time (Day/Night)		
Name of Examiner		Location		
Licence No		Type of Helicopter		Regn No :
Briefed for flight. Documents checked and found satisfactory. This check is valid upto (date)				
Signature and Seal of Examiner/Instructor				
S = Satisfactory		U = Unsatisfactory		N = Not Observed
				N/A = Not Applicable
Check		Proficiency		
1. Ground Checks		Check		Proficiency
1.1. Status of recurrent training		4.5 Nav systems and radios set up		
1.2. Simulator and/or Flying Training (as applicable)		4.6 Taxi / Hover Taxi		
1.3. Knowledge of Flight Manual, Limitations and Performance		4.7 Use of landing light (night only)		
1.4. Knowledge of Flight Planning, Mass & Balance, Density Altitude		4.8 Departure briefing and RT procedures		
1.5. Knowledge of Emergency Procedures		5. Hover		
1.6. Knowledge of SOPs and Air Traffic Procedures		5.1 Hover over spot		
		5.2 Power assurance checks, as applicable		
2. Flight Preparation		6. Departure		
2.1 Weather situation and charts, weather forecast		6.1 Normal takeoff (clear heliport)		
2.2 Winds and temperatures		6.2 Steep takeoff / max power takeoff		
2.3 Freezing level / altitude		6.3 Instrument Departure (IFR only)		
3. Flight Planning		7. Enroute		
3.1 Fuel calculation		7.1 Navigation – use of nav aids		
3.2 Performance calculation and altitude selection		7.2 Fuel management		
3.3 Payload calculation		7.3 Position reporting		
4. Pre Flight		8. Approach and Landing		
4.1 Navigation / choice of flight rules		8.1 Reconnaissance, wind direction and velocity.		
4.2 Pre flight inspection		8.2 Normal approach		
4.3 Use of checklists		8.3 Instrument Approach (IFR only)		
4.4 Engine Starting Procedures		8.4 Use of landing light on approach (night only)		

Check	Proficiency
9. In flight Emergencies (at least three, only if no passengers onboard, in case passengers are onboard only actions to be called out)	
9.1 Engine Fire (call out actions only)	
(a) Engine fire on ground including helicopter evacuation drill	
(b) Engine fire in flight	
9.2 Electrical Fire (call out actions only)	
9.3 Engine Failure (as applicable to type of helicopter) (at least two)	
(a) At Hover	
(b) Shortly before reaching TDP/DPATO (ME only)	
(c) Shortly after reaching TDP/DPATO (ME only)	
(d) In cruise	
(e) Go round / landing – failure before LDP/DPBL (ME only)	
(f) Landing – failure after LDP/DPBL (ME only)	
9.4 Hydraulic Failure	
9.5 Electrical Failure	
9.6 Tail Rotor Failure (FFS only) (call out actions only in helicopter)	
9.7 Tail Rotor Control Failure (day only)	
9.8 Autorotation including planning, entry, execution, flare and recovery	
9.9 AFCS failure, if applicable	
9.10 Undercarriage malfunction, if applicable	
9.11 Any other emergencies, as per Flight Manual	
10. General Flight Ability	
10.1 Radio Communication Procedures	
10.2 Situational Awareness and Decision Making	
10.3 CRM and Crew Coordination	

Result of Check	Passed	Failed
-----------------	--------	--------

<u>Remarks / Comments</u>	
Pilot's Signature	Examiner's Signature

 मन्यमेव जयते	DGCA INDIA		CA - 47	
	OFFSHORE LINE CHECK <u>MULTI ENGINE HELICOPTERS</u>		Page 1 of 2	
			Issue 02 Rev 00	23 Feb 2024
Company		Date of check		
Name of Pilot		Date of last check		
Licence No		Block Time (Day/Night)		
Name of Examiner		Location		
Licence No		Type of Helicopter		Regn No :
Briefed for flight. Documents checked and found satisfactory. This check is valid upto (date)				
Signature and Seal of Examiner/Instructor				
S = Satisfactory		U = Unsatisfactory		N = Not Observed
				N/A = Not Applicable
Check		Proficiency		Check
Proficiency				Proficiency
1. Ground Checks		4. Departure		
1.1. Status of recurrent training		4.1 Normal takeoff / steep takeoff		
1.2. Simulator and/or Flying Training (as applicable)		4.2 Category A takeoff, is applicable		
1.3. Knowledge of Flight Manual, Limitations and Performance		4.3 Instrument Departure (IFR only)		
1.4. Knowledge of Flight Planning, Mass & Balance, Density Altitude		5. Enroute		
1.5. Knowledge of Emergency Procedures		5.1 Navigation – use of nav aids		
1.6. Knowledge of SOPs and Air Traffic Procedures		5.2 Fuel management		
2. Pre Flight		5.3 Position reporting		
2.1 Navigation, flight planning and altitude selection		6. Approach and Landing		
2.2 Pre flight inspection		6.1 Pre landing checks.		
2.3 Use of checklists		6.2 Approach selection – FP and NFP		
2.4 Engine Starting Procedures		6.3 Deck clearance		
2.5 Navigation systems and radios set up		6.4 Category A final approach and landing		
2.6 Departure briefing and RT procedures		7. Turn Around		
3. Hover		7.1 Passenger Handling		
3.1 Hover over spot		7.2 Baggage and freight handling		
3.2 Power assurance checks, as applicable		7.3 Refueling Procedure		
3.3 Hover taxi / taxi		7.4 Payload calculations		
3.4 Departure briefing		7.5 Coordination with HLO		

Check	Proficiency
8. In flight Emergencies (at least three, only if no passengers onboard, in case passengers are onboard only call out the actions)	
8.1 Engine Fire (call out actions only)	
(a) Engine fire on ground including helicopter evacuation drill	
(b) Engine fire in flight	
8.2 Electrical Fire (call out actions only)	
8.3 Engine Failure (as applicable to type of helicopter) (at least two)	
(a) At Hover	
(b) Shortly before reaching TDP/DPATO (ME only)	
(c) Shortly after reaching TDP/DPATO (ME only)	
(d) In cruise	
(e) Go round / landing – failure before LDP/DPBL (ME only)	
(f) Landing – failure after LDP/DPBL (ME only)	
8.4 Hydraulic Failure	
8.5 Electrical Failure	
8.6 Tail Rotor Failure (FFS only) (call out actions only in helicopter)	
8.7 Tail Rotor Control Failure (day only)	
8.8 Autorotation including planning, entry, execution, flare and recovery	
8.9 AFCS failure, if applicable	
8.10 Undercarriage malfunction, if applicable	
8.11 Any other emergencies, as per Flight Manual	
9. General Flight Ability	
9.1 Radio Communication Procedures	
9.2 Situational Awareness and Decision Making	
9.3 CRM and Crew Coordination	

Result of Check	Passed	Failed
-----------------	--------	--------

<u>Remarks / Comments</u>	
Pilot's Signature	Examiner's Signature

	DGCA INDIA		CA - 48	
	SPECIAL VFR TRAINING		Page 1 of 2	
			Issue 02 Rev 00	23 Feb 2024
Company		Date of check		
Name of Pilot		Date of last check		
Licence No		Block Time (Day)		
Name of Examiner		Location		
Licence No		Type of Helicopter	Regn No :	
Briefed for flight. Documents checked and found satisfactory.				
Signature and Seal of Examiner/Instructor				
S = Satisfactory		U = Unsatisfactory		N = Not Observed
				N/A = Not Applicable
Check		Proficiency		Check
1. Ground Checks				3. Hover and Departure
1.1. Status of recurrent training				3.1 Hover over spot and power assurance check
1.2. Simulator and/or Flying Training (as applicable)				3.2 Simulated instrument departure
1.3. Knowledge of Flight Manual, Limitations and Performance				3.3 Maintenance of visual contact with ground after takeoff
1.4. Knowledge of Flight Planning, Mass & Balance				4. Climb and Air Work
1.5. Knowledge of Emergency Procedures				4.1 Maintenance of V _y and power adjustment during climb.
1.6. Knowledge of Special VFR and Air Traffic Procedures				4.2 Recovery from unusual attitudes
2. Pre Flight Procedures				4.3 Maintenance of flight parameters with ref to instruments
2.1 Navigation & Flight Planning				4.4 AFCS handling during air work, if applicable
2.2 Pre Flight inspection				5. Approach and Landing
2.3 Use of checklists				5.1 Preparation for an Instrument Approach Procedure
2.4 Engine starting procedures				5.2 2D Non precision approach (VOR/DME)
2.5 Navigational systems and radios set-up				5.3 3D Precision approach (ILS)
2.6 Departure briefing & RT procedures				5.4 Missed approach
				5.5 AFCS handling during approach, if applicable

Check	Proficiency
6. In flight Emergencies (at least three)	
6.1 Engine Fire (call out actions only)	
(a) Engine fire on ground including helicopter evacuation drill	
(b) Engine fire in flight	
6.2 Electrical Fire (call out actions only)	
6.3 Engine Failure (as applicable to type of helicopter) (at least two)	
(a) At Hover	
(b) Shortly before reaching TDP/DPATO (ME only)	
(c) Shortly after reaching TDP/DPATO (ME only)	
(d) In cruise	
(e) Go round / landing – failure before LDP/DPBL (ME only)	
(f) Landing – failure after LDP/DPBL (ME only)	
6.4 Hydraulic Failure	
6.5 Electrical Failure	
6.6 Tail Rotor Failure (FFS only) (call out actions only in helicopter)	
6.7 Tail Rotor Control Failure (day only)	
6.8 Autorotation including planning, entry, execution, flare and recovery	
6.9 AFCS failure, if applicable	
6.10 Undercarriage malfunction, if applicable	
6.11 Any other emergencies, as per Flight Manual	
7. General Flight Ability	
7.1 Radio Communication Procedures	
7.2 Situational Awareness and Decision Making	
7.3 CRM and Crew Coordination	

Result of Check	Passed	Failed
-----------------	--------	--------

<u>Remarks / Comments</u>	
Pilot's Signature	Examiner's Signature

	DGCA INDIA		CA - 49	
	LINE CHECK (HILL OPS) MULTI / SINGLE ENGINE HELICOPTERS		Page 1 of 2	
			Issue 02 Rev 00	23 Feb 2024
Company		Date of check		
Name of Pilot		Date of last check		
Licence No		Block Time (Day)		
Name of Examiner		Location		
Licence No		Type of Helicopter		Regn No :
Briefed for flight. Documents checked and found satisfactory. This check is valid upto (date)				
Signature and Seal of Examiner/Instructor				
S = Satisfactory		U = Unsatisfactory		N = Not Observed
N/A = Not Applicable				
Check		Proficiency		
1. Ground Checks		4.4 Engine Starting Procedures		
1.1. Status of recurrent training		4.5 Navigation systems and radios set up		
1.2. Simulator and/or Flying Training (as applicable)		4.6 Taxi / Hover Taxi		
1.3. Knowledge of Flight Manual, Limitations and Performance		4.7 Departure briefing		
1.4. Knowledge of Flight Planning, Mass & Balance, Density Altitude		4.8 RT procedures		
1.5. Knowledge of Emergency Procedures		5. Hover		
1.6. Knowledge of SOPs and Air Traffic Procedures		5.1 Hover over spot		
2. Flight Preparation		5.2 Power assurance checks, as applicable		
2.1 Weather situation and charts, weather forecast		6. Departure		
2.2 Winds and temperatures		6.1 Normal takeoff (clear heliport)		
2.3 Freezing level / altitude		7. Enroute		
3. Flight Planning		7.1 Navigation – use of nav aids		
3.1 Fuel calculation		7.2 Fuel management		
3.2 Performance calculation and altitude selection		7.3 Position reporting		
3.3 Payload calculation		8. Approach and Landing		
4. Pre Flight		8.1 Reconnaissance,		
4.1 Navigation / choice of flight rules		8.2 wind direction and velocity.		
4.2 Pre flight inspection		8.3 Normal approach		
4.3 Use of checklists				

Check	Proficiency
8. In flight Emergencies (at least three, only if no passengers onboard, in case passengers are onboard only call out the actions)	
8.1 Engine Fire (call out actions only)	
(a) Engine fire on ground including helicopter evacuation drill	
(b) Engine fire in flight	
8.2 Electrical Fire (call out actions only)	
8.3 Engine Failure (as applicable to type of helicopter) (at least two)	
(a) At Hover	
(b) Shortly before reaching TDP/DPATO (ME only)	
(c) Shortly after reaching TDP/DPATO (ME only)	
(d) In cruise	
(e) Go round / landing – failure before LDP/DPBL (ME only)	
(f) Landing – failure after LDP/DPBL (ME only)	
8.4 Hydraulic Failure	
8.5 Electrical Failure	
8.6 Tail Rotor Failure (FFS only) (call out actions only in helicopter)	
8.7 Tail Rotor Control Failure (day only)	
8.8 Autorotation including planning, entry, execution, flare and recovery	
8.9 AFCS failure, if applicable	
8.10 Undercarriage malfunction, if applicable	
8.11 Any other emergencies, as per Flight Manual	
9. General Flight Ability	
9.1 Radio Communication Procedures	
9.2 Situational Awareness and Decision Making	
9.3 CRM and Crew Coordination	

Result of Check	Passed	Failed

<u>Remarks / Comments</u>	
Pilot's Signature	Examiner's Signature

	DGCA INDIA		CA - 50	
	<u>LINE CHECK – ELO / HHO / HEMS</u> <u>MULTI / SINGLE ENGINE HELICOPTERS</u>		Page 1 of 2	
			Issue 02 Rev 00	23 Feb 2024
Company		Date of check		
Name of Pilot		Date of last check		
Licence No		Block Time (Day/Night)		
Name of Examiner		Location		
Licence No		Type of Helicopter		Regn No :
Briefed for flight. Documents checked and found satisfactory. This Role Check is valid upto (date)				
Signature and Seal of Examiner/Instructor				
S = Satisfactory		U = Unsatisfactory		N = Not Observed
				N/A = Not Applicable
Check		Proficiency		Check
				Proficiency
1. Ground Checks		Pre Flight (contd..)		
1.1. Status of recurrent training			4.3 Use of checklists	
1.2. Simulator and/or Flying Training (as applicable)			4.4 Engine Starting Procedures	
1.3. Knowledge of Flight Manual, Limitations and Performance			4.5 Navigation systems and radios set up	
1.4. Knowledge of Flight Planning, Mass & Balance			4.6 Taxi / Hover Taxi	
1.5. Knowledge of Emergency Procedures			4.7 Departure briefing and RT procedures	
1.6. Knowledge of Air Traffic Procedures			5. Hover	
2. Flight Preparation			5.1 Hover over spot	
2.1 Weather situation and charts, weather forecast			5.2 Power assurance checks, as applicable	
2.2 Winds and temperatures			6. Departure	
2.3 Preparation of ELO/HHO/HEMS equipment; pre-flight checks			6.1 Role take-off (ELO/HHO/HEMS)	
3. Flight Planning			7. Enroute	
3.1 Fuel calculation			7.1 Navigation – use of nav aids	
3.2 Performance calculation and altitude selection			7.2 Fuel management and position reporting	
3.3 Payload calculation			7.3 Role management (ELO/HHO/HEMS)	
4. Pre Flight			8. Approach and Landing	
4.1 Navigation / choice of flight rules			8.1 Reconnaissance, wind direction and velocity.	
4.2 Pre flight inspection			8.2 Normal approach and landing	

Check	Proficiency
9. In flight Emergencies (at least three)	
9.1 Engine Fire (call out actions only)	
(a) Engine fire on ground including helicopter evacuation drill	
(b) Engine fire in flight	
9.2 Electrical Fire (call out actions only)	
9.3 Engine Failure (as applicable to type of helicopter) (at least two)	
(a) At Hover	
(b) Shortly before reaching TDP/DPATO (ME only)	
(c) Shortly after reaching TDP/DPATO (ME only)	
(d) In cruise	
(e) Go round / landing – failure before LDP/DPBL (ME only)	
(f) Landing – failure after LDP/DPBL (ME only)	
9.4 Hydraulic Failure	
9.5 Electrical Failure	
9.6 Tail Rotor Failure (FFS only) (call out actions only in helicopter)	
9.7 Tail Rotor Control Failure (day only)	
9.8 Autorotation including planning, entry, execution, flare and recovery	
9.9 AFCS failure, if applicable	
9.10 Undercarriage malfunction, if applicable	
9.11 Any other emergencies, as per Flight Manual	
10. General Flight Ability	
10.1 Radio Communication Procedures	
10.2 Situational Awareness and Decision Making	
10.3 CRM and Crew Coordination	

Result of Check	Passed	Failed
-----------------	--------	--------

<u>Remarks / Comments</u>	
Pilot's Signature	Examiner's Signature

	DGCA INDIA		CA – 50(A)	
	<u>RECURRENT FLYING TRAINING ON SIMULATORS FOR SINGLE / MULTI ENGINE HELICOPTERS WITH SPECIAL EMPHASIS ON ASSESSMENT OF AERONAUTICAL DECISION MAKING (ADM)</u> (Delete as Applicable, Trainers to see instructions overleaf on assessment of ADM)		Page 1 of 2	
			Issue 02 Rev 00	23 Feb 2024
Company		Name of ATO		
Name of Pilot		Date of check		
Licence No		Block Time		
Name of TRE / TRI / SFI		Location		
Licence No		Type	Sim Regn No :	
Briefed and Documents checked and found satisfactory. This check is valid upto (date)				
Signature and Seal of TRE / TRI / SFI				
S = Satisfactory		U = Unsatisfactory	N = Not Observed	N/A = Not Applicable
The following emergencies and actions (as can be simulated as per qualification of FSTD, and where applicable emergencies placed below to be simulated in IFR).				Proficiency
1	Engine Fire. (a) Engine fire on ground. (b) Hot Start. (c) Engine fire in flight.			
2	Electrical Fire.			
3	Total Electrical Failure (by Day & Night).			
4	Engine Failure (a) At Hover (IGE and OGE). (b) OEI during take-off, before / after TDP / DPATO (ME only). (c) In cruise (Normal Autorotation including planning, entry, execution, flare and recovery). (d) Low Speed Autorotation. (e) OEI during approach, before / after LDP / DPBL (ME only).			
5	Hydraulic / Servo Failure (if applicable).			
6	Tail Rotor Failure (IGE Hover / OGE Hover / in forward flight).			
7	Tail Rotor Control Failure.			
8	Loss of Tail Rotor Effectiveness.			
9	Vortex Ring / Settling with Power (conditions leading to & correct recovery actions).			
10	AFCS Failure (if applicable).			
11	Undercarriage malfunction (if applicable).			
12	Transmission related emergencies (MGB / TGB Oil Pressure failure / High Temperature / Chips).			
13	Engine Governor Malfunction / Failure.			
14	Radio Communication Failure.			
15	Any other emergencies (as per Rotorcraft Flight Manual).			
Instrument Flying Exercises				
16	Navigational systems and radios set-up, Departure Briefing and RT procedures, Use of cockpit lights.			
17	Instrument Departures.			
18	Basic Instrument Flying – Level Rate turns, Climbing and Descending Turns, Levelling and rolling out from turns.			
19	Entry and Execution of holding patterns.			
20	2D Non precision approach (VOR/DME).			
21	3D Precision approach (ILS).			
22	GNSS / PINS approaches.			
23	Missed approach procedures.			
24	Recovery from Unusual Attitudes.			

General Flying Aspects		Proficiency
25	Aeronautical Decision Making (ADM) (See instructions below for details on simulation and assessment)	
26	CRM and Crew Coordination.	
27	Situational Awareness (SA).	

Remarks / Comments of Trainer <u>(with special emphasis on assessment of ADM)</u>	
Pilot's Signature	Signature and seal of TRE / TRI / SFI

GUIDANCE FOR TRAINERS ON ASSESSMENT OF ADM

1. Scenarios / examples of exercises that may be simulated for assessment of Aeronautical Decision Making (ADM) should include, but are not limited to, the following situations / conditions :-
 - (a) Simulation of adverse weather conditions such as low clouds or poor visibility before initiation of a take-off in a VFR flight, necessitating a Go / No-Go decision by the aircrew.
 - (b) Simulation of progressively deteriorating visibility conditions in a VFR flight, necessitating precautionary landings / timely avoidance of such a condition and suitable diversion actions.
 - (c) Simulation of approaching adverse weather conditions / conditions likely to lead to IIMC during a VFR flight, necessitating avoidance actions to remain in VFR, and a No-Go and return to base decision by the aircrew.
 - (d) Simulation of conditions leading to White Out / Brown Out in a VFR flight, and the correct recovery / avoidance actions.
 - (e) Simulation of high ROD / High rate of closure / Tailwind Approach in a VFR flight, necessitating a go around decision by the aircrew, including actions for maintaining correct attitudes / speeds / and power settings during the go around.
 - (f) Simulation of deteriorating visibility or cloud base below minima in an IFR flight, and the pilot unable to acquire the required visual references at DA/MDA or DH/MDH for executing a landing during the conduct of 2D / 3D approaches, necessitating a missed approach procedure and subsequent diversion after the mandated number of unsuccessful attempts.
2. Trainers are to simulate the conditions of Adverse Weather / Poor Visibility / Low Cloud Base / High ROD / High Rate of Closure / Tailwind Approach etc in a progressive and escalatory manner, thereby soliciting a response from the aircrew that may be adequately assessed vis-à-vis a safe act. Emphasis is required to be placed on the aircrew's :-
 - (a) Ability to recognize an adverse situation.
 - (b) Ability to analyse the situation, and take a timely safe decision.
 - (c) Ability to execute the safe decision / execute the correct avoidance actions.