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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 II, 25<sup>TH</sup> SEPTEMBER 2018**

**EFFECTIVE: FORTHWITH**

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

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

**1. INTRODUCTION**

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.

**2. APPLICABILITY**

- 2.1 This CAR is applicable to all operators, and pilots operating helicopters, in commercial air transportation. Additional requirements related to operation of Single Engine Turbine (SET) Helicopters for scheduled commercial operations are placed at Operations Circular 04 of 2018.
- 2.2 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.

**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 Initial Crew Resource Management (CRM) training shall be completed before commencing unsupervised flying, unless the crew member has previously completed an initial CRM course.
- 3.6 **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.
- 3.7 **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:
  - 3.7.1 Include ground and flight training facilities and properly qualified instructors as determined by DGCA;
  - 3.7.2 Consist of ground and flight training for the type(s) of helicopter on which the flight crew member serves;
  - 3.7.3 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;
  - 3.7.4 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;

- 3.7.5 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;
- 3.7.6 Include knowledge and skills related to the operational use of head-up display and/or enhanced vision systems for those helicopters so equipped; and
- 3.8 **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.
- 3.9 **Pilot-in-Command Operational Qualification.**
- 3.9.1 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 3.9.2 and 3.9.3.
- 3.9.2 Each such pilot shall demonstrate to the operator an adequate knowledge of:
- 3.9.2.1 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
- 3.9.2.2 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.
- 3.9.3 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.

3.9.4 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.

3.9.5 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 3.9.2 and 3.9.3.

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

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

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

3.11.2 Both pilots shall hold current Instrument Rating on type.

Note : The requirement at 3.11.2 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 fare paying 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. CONVERSION TRAINING (TYPE RATING)**

- 6.1 Conversion training on a type of helicopter may 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.
- 6.1.2 If operator wishes to do flying training of his pilot on own company helicopter then the pilot shall undergo ground course and simulator (when part of the approved course) at an ATO, before undertaking flying training with a DGCA approved TRE/TRI. On completion of training he shall undergo Skill Test Day and Skill Test Night (if required) with a TRE, towards completion of type rating. The flying training syllabus to be followed shall be approved by DGCA.
- 6.1.3 In case no ATO exists for a particular type of helicopter in India or abroad, conversion on type may be carried out by undergoing prescribed ground and flying training under the aegis of a DGCA approved TRI/TRE. The conduct of such training, and the ground and flying training syllabus to be followed shall be approved by DGCA on a case-to-case basis, guidance towards quantum of flying training is placed at Para 12.6. In this case, the pilot shall pass the prescribed DGCA CEO written examination on successful completion of ground training, after which he shall undergo flying training under a DGCA approved TRI/TRE. On completion of training he shall undergo Skill Test(s) under a TRE towards completion of type rating. Details shall be submitted to DGCA for licence endorsement.
- 6.1.4 The instructional flying training and Skill Tests shall not be flown with the same Instructor / Examiner.

## **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 endorsement shall be made as mentioned at Para 12.10. Duration of Differences Training shall be as specified by the ATO (and approved by DGCA/other regulators) or at least 1:00 hour, whichever is greater.

- 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.
- 7.4 The list of helicopter types and their variants is placed at Para 12.10, and the same shall be regularly updated by FSD.

## **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/Chief 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 Training flying and subsequent skill test/release check shall not be carried out by the same TRE/TRI, unless specifically authorised by the DGCA on a case-to-case basis.

9.1.4 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.

9.1.5 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.

9.1.6 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.

9.1.7 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.

9.1.8 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.

9.1.9 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 period of validity of a PPC shall be 6 months. PPC shall be performed twice within any period of one year. 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 hours, 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 hours when flown on a helicopter and 2:00 hours when flown in a FFS Level B/C/D (FAA Designation), in such a case all mandatory exercises as mentioned in CA 44 and CA 45 shall be completed. 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) Check.** 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)



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 in a revenue flight.

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 (FAA 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. 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.

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 landing at minimum one helipad at/above 4000 Feet 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.

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 (FAA Designation) specifically approved for the same, when flown in a simulator the minimum duration shall be 1:00 hr.

9.2.5 **Night Flying Check and Night Route Check.** An operator shall ensure that when passengers are intended to be carried at night, each flight crew member holding a CPL(H) shall have carried out at least five take offs and landings by

night, and one route check by night, in the last six months immediately preceding the date of intended flight, to the satisfaction of a TRE. Night Flying Checks and Night Route Checks are required to be carried out separately on each type of helicopter flown. A night route check shall comprise a route/triangular nav of minimum 100 Nautical miles, and a route check flown by night shall be considered to meet the requirements of day route check, however not vice versa. A Night Flying Check may be carried out in a FFS Level B/C/D (FAA Designation) specifically approved for the same.

**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). 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 breakdown shall be 4:00 + 4:00 hrs (IF + Emergencies) respectively.

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) 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/Chief Pilot. Training placed at Module II may be undertaken with a TRE/TRI/Check Pilot/SEP Instructor/GTO. Training placed at Module III and V shall be undertaken at a GTO. Training placed at Module IV may be undertaken with a DGCA approved CRM Instructor / GTO.

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, Type emergencies and recovery actions, and any changes to Operations Manual / Regulations.
II	SEP Training	Once a year	02 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.
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	Once in two years		As Applicable
	DGR Training	Once in two years		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.**

Break in Flying	Ground Refresher	Flying training with TRE/TRI		Route Check and/or IR Check	Before flying SPO	
		Helicopter <u>OR</u> FFS Level B/C/D or FTD 6/7 (FAA Designation)			PIC with copilot	As copilot
<b>Day Flying – Helicopters with A UW &lt;= 5700 kg</b>						
60 to 89 days	Applicable only to pilots with < 1000 hrs PIC on helicopters			-	-	0:45
90 to 179 days	2:00	3 TOL as PIC with an experienced copilot	1 session Total 0:45 hr	-	-	-
180 days to less than One year	3:00	PPC (3TOL) 0:45	2 sessions Total 1:30	-	1:00	-
1 year to less than 2 years	4:00	Dual 0:45 and Skill Test (3TOL) 0:45	3 sessions Total 2:30	If due	2:00	-
2 years and more	5:00	Dual 1:00 and Skill Test (3TOL) 0:45	4 sessions Total 3:00	Route Check 1:00, IR Check if due	4:00	-
<b>Day Flying – Helicopters with A UW &gt; 5700 kg</b>						
60 to 89 days	Applicable only to pilots with < 1000 hrs total flying			-	-	0:45
90 to 179 days	2:00	3 TOL as PIC with an experienced co-pilot	1 session Total 0:45	-	-	-
180 days to less than One year	3:00	PPC (3TOL) 0:45	2 sessions Total 1:30	1 Route Check 1:00, IR Check if due	-	-

1 year to less than 2 years	4:00	Dual 0:45 and Skill Test (3TOL) 0:45	3 sessions Total 2:30	2 Route Checks 2:00, IR Check if due	-	-
2 years and more	5:00	Dual 1:00 and Skill Test (3TOL) 0:45	4 sessions Total 3:00	3 Route Checks 3:00, IR Check 1:00	-	-
<b>Night Flying – All Helicopters</b>						
180 days to less than 1 year	-	PPC (3TOL) 0:45	1 session Total 0:45	-	-	-
1 year to less than 2 years	1:30	Dual 0:45 hr and Skill Test (3TOL) 0:45 hr	2 sessions Total 1:30	-	-	1:00
2 years and more	2:00	Dual 1:00 hr and Skill Test (5TOL) 1:00 hr	2 sessions Total 2:00	-	-	2:00

Notes.

- (a) "TOL" means 'Take-offs & Landings'.
- (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) Ground Refresher consisting of normal and emergency procedures shall be carried out by TRE/TRI/Check Pilot/Chief Pilot.
- (f) Recent experience by Day shall be carried out before commencing recent experience by Night.
- (g) The pilot should hold current IR on type before undertaking night flying in IFR.
- (h) An experienced co-pilot as referred to in this para, shall be a pilot with 50 hrs PIC on type.

**11. PILOT QUALIFICATIONS AND RECURRENT TRAINING REQUIREMENTS FOR SPECIAL ROLES**

(DGCA approved TRE/TRI/Check Pilots shall be role qualified and current 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. 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) 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) 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 mentioned below may be carried out in revenue flights.

<b>Total Flying Hours</b>	<b>Experienced in Hills/Mtns</b>	<b>No previous experience</b>
Less than 1000 hrs total flying experience including 250 hrs PIC on helicopters.	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.	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 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 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, where applicable, shall be conducted for a duration of at least 4 hours at a DGCA approved GTO/ATO or by a TRE/TRI/Check Pilot/Chief 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.

- 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.

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 10 hrs of training flying, 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. Offshore Training shall be an in-depth training covering all aspects of take-off and landing, preferably on all available types of heli-decks and moving vessels present in the area of operations.
- 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.

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

<b>Less Than 1000 Hrs on Helicopters and 100 Hrs on ME Helicopters</b>	<b>1000 Hrs and above on Helicopters and 500 Hrs on ME Helicopters</b>
750 Hrs Co-pilot multi offshore 200 Hrs on type	500 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 Proficiency 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) 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) 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.**

<b>Total Flying Hours</b>	<b>Experienced in ELO</b>	<b>No previous experience</b>
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/Chief 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.**

<b>Total Flying Hours</b>	<b>Experienced in HHO</b>	<b>No previous experience</b>
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	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.

than 300 hrs PIC on type.		
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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/Chief 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. EXTENSION OF AIRCRAFT RATING

12.1 **General.** A qualified helicopter pilot who wants to convert onto another type of helicopter and also seek extension of his rating onto the new type of helicopter needs to undergo both ground and flying training. The quantum of this 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.

12.1.1 **Group 1 Helicopters.** All single engine helicopters are classified as Group 1 helicopters for the purpose of training and operations as follows:

12.1.1.1 1A - all single engine helicopters with reciprocating engines.

12.1.1.2 1B - all single engine helicopters with turbine powered engines.

12.1.2 **Group 2 Helicopters.** All multi engine helicopters with maximum certified take off mass 5700 kg or less are classified as Group 2 helicopters.

12.1.3 **Group 3 Helicopters.** All multi engine helicopters with maximum certified take off mass exceeding 5,700 kg are classified as Group 3 helicopters.

12.2 **Ground Training Syllabus.** The syllabus for ground training as prescribed by the ATO shall be followed, however in no case the syllabus should be less than that prescribed by the OEM, as approved by the certificating authority of the ICAO contracting state.

12.3 **Flying Training Syllabus.** The syllabus for flying training as prescribed by the ATO shall be followed, as approved by the certificating authority of the ICAO contracting state. In the absence of such prescribed syllabus, the minimum flying training as given in Para 12.6 below shall be followed, after prior approval of flying syllabus by DGCA.

12.3.1 **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.

- 12.3.1.1 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.
- 12.3.1.2 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.
- 12.4 **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.
- 12.5 **Flying Training Exercises.** Specific exercises to be carried out during conversion training are given in the Flight Report format at Appendix CA 43.
- 12.6 **Initial Conversion into a New Group where no ATO Syllabus Exists.**  
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*
		Only On Helicopter	With Simulators				
Using FFS B/C/D			Using FTD 6/7				
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=<570 0 kg)	10 hrs	4	12	6	12	
3 (MET>570 0 kg)	2 (MET=<570 0 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 Designation).

**12.6.1 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:

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

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

12.6.1.3 Using FTD 6/7 (FAA Designation). At least six hours of training including minimum four hours on helicopter by day is to be undertaken.

## 12.7 IR Training/Extension.

12.7.1 At least 1:00 hours of IR training shall be carried out using the helicopter or FFS level B/C/D or FTD level 6/7 (FAA 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.

12.7.2 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 IR training in last six months on the helicopter type / FSTD, followed by an IRT of minimum 1:00 hour with a TRE. The pilot shall then apply to DGCA for IR endorsement, with requisite documents.

**12.8 Types of Helicopters.** A table of all helicopters currently being operated in India giving their type and variants, is appended for ready reference.

<b>1 Type</b>	<b>2 Helicopter</b>	<b>3 Group</b>	<b>4 Differential Training</b>	<b>5 Licence Endorsement</b>
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<b>1. Agusta</b>					
SE Turbine	A 119 KOALA	1B	(D)	A 119 / AW119 Mk II	
	AW 119 Mk II				
ME Turbine	A 109 A	2	(D)	A 109	
	A 109 A II				
	A 109 C				
	A 109 K2				
	A 109 LUH	2	(D)	AW 109	
	A 109 E				
	A 109 S				
	AW 109 SP	2	--	AW 169	
	AW 169				
AW 139	3	--	AW 139		
<b>2. Bell Helicopters</b>					
SE Piston	Bell 47 G-2 Bell 47 G-5	1A	--	Bell 47	
SE Turbine	Bell 206 A Bell 206 B Bell 206 B 2 Bell 206 B 3	1B	(D)	Bell 206 / 206L	
	Bell 206 L Bell 206 L-1 Bell 206 L-3 Bell 206 L-4				
	Bell 214 B Bell 214 B 1	1B	--	Bell 214	
	Bell 407 Bell 407 GX	1B	(D)	Bell 407 / 407 GX	
	Bell 212				
ME Turbine	Bell 412 Bell 412 SP Bell 412 HP Bell 412 EP Bell 412 EPI	2	(D)	Bell 212 / 412	
	Bell 214 ST	2	--	Bell 214 ST	
	Bell 222 Bell 222 A Bell 222 B Bell 222 UT Bell 222 SP	2	(D)	Bell 222 / 230/ 430	
	Bell 230				
	Bell 430				
	Bell 427	2	--	Bell 427	
	Bell 429	2	--	Bell 429	
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

Type	Helicopter	Group	Differential Training	Licence Endorsement
<b>3. EH Industries</b>				
ME Turbine	EH 101	3	--	EH 101
<b>4. Airbus Helicopters</b>				
SE Turbine	AS 350 B AS 350 B 1 AS 350 B2 AS 350 D AS 350 BA AS 350 BB	1B	(D)	AS 350 / 350 B3
	AS 350 B3			
	EC 130 B4 EC 130 T2			EC 130
	EC 120	1B	--	EC 120
	SE 3160 SA 316 B SA 316 C	1B	(D)	SA 316 / 319/ 315
	SA 319 B			
	SA 315 B			
	ME Turbine	AS 332 C AS 332 C 1 AS 332 L AS 332 L1	3	(D)
AS 332 L2				
EC 225 LP				
AS 355 E AS 355 F AS 355 F1 AS 355 F2		2	(D)	AS 355 / 355 N
AS 355 N				
EC 135 T1 CDS EC 135 P1 CDS		2	(D)	EC 135
EC 135 T1 CPDS EC 135 P1 CPDS				
EC 135 T2 CPDS EC 135 P2 CPDS				
EC 145		2	--	EC 145
MBB-BK 117 A-1 MBB-BK 117 A-3				



	MBB-BK 117 A-4	2	(D)	BK 117
	MBB-BK 117 B-1			
	MBB-BK 117 B-2			
	MBB-BK 117 C-1			
	MBB-BK 117 C-2			

1 Type	2 Helicopter	3 Group	4 Differential Training	5 Licence Endorsement
<b>4. Airbus Helicopters (Contd)</b>				
ME Turbine	SA 365 N SA 365 N 1 AS 365 N2	2	(D)	S 365 / EC 155
	AS 365 N3			
	AS 365 N3+			
	EC 155 B / B1			
<b>5. HAL</b>				
SE Turbine	Chetak	1B	(D)	SA 316 / 315
	Cheetah			
ME Turbine	Dhruv	2	--	Dhruv
<b>6. Hughes/ Schweizer</b>				
SE Piston	269 A 269 B 269 C 300 C 300 CB 300 Cbi	1A	--	HU 269
SE Turbine	330 330 SP	1B	--	SC 330
<b>7. McDonnell Douglas</b>				
SE Turbine	Hughes 369 D Hughes 369 E Hughes 369 HE Hughes 369 HS	1B	(D)	HU 369 / MD 500 N / 600
	MD 500 N (NOTAR) MD 520 N			
	MD 600			

ME Turbine	MD 900 MD 902	2	(D)	MD 900 / 902
<b>8. Robinson</b>				
SE Piston	R 22 R 22A R 22 B	1A	--	R 22 / 22A / 22B
	R 44	1A	(D)	R 44 / Raven / Raven II
	R 44 Raven R 44 Raven II			
SE Turbine	R 66	1B	--	R 66

<b>1 Type</b>	<b>2 Helicopter</b>	<b>3 Group</b>	<b>4 Differential Training</b>	<b>5 Licence Endorsement</b>
<b>9. Sikorsky</b>				
ME Turbine	S 76 A S 76 A+ S 76 A++	2	(D)	S 76 / 76B / 76C / 76C+ / 76C++
	S 76 B			
	S 76 C			
	S 76 C+ S76 C++	3	--	S 92A
	S 92 A			
<b>10. Ministry of Aviation Industry of Russia</b>				
ME Turbine	MIL Mi 8 MIL Mi 17 / 1V / V5 MIL Mi 171 MIL Mi 172	3	--	Mi 8 / Mi 17 Mi 171 / Mi 172

Notes:

- (a) If a dividing line exists in column 2, this indicates a variant.
- (b) The symbol (D) between variants of types of helicopter used in Column 4 indicates that Differential Training is required;
- (c) Although the license endorsement (Column 5) contains all helicopters listed in Column 2, the required familiarization or differential training has still to be completed
- (d) The specific variant on which the skill test for the type rating has been completed will be recorded accordingly in the Pilots Log Book.

**13. REQUIREMENTS FOR FLYING MORE THAN ONE TYPE OF HELICOPTER**

**13.1 Conditions for all Helicopters.** A pilot may operate more than one helicopter type, subject to the following conditions:

13.1.1 The pilot has a valid license for the type(s) of helicopter(s); and

13.1.2 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

13.1.3 50 hours on each type, including minimum three take-offs and landings on type in the last 90 days; and

13.1.4 A proficiency check has been conducted on each type and is valid; and

13.1.5 Meets the recurrent training requirements on type.

13.2 For **Group 2 helicopters**, the following additional requirements apply:

13.2.1 Not more than two helicopter types in one duty period; and

13.2.2 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.

13.3 For **Group 3 helicopters**, the following additional requirements apply:

13.3.1 Only one type during one duty period; and

13.3.2 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.

13.4 Subject to meeting the requirements as mentioned in Para 13 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.

13.5 **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 13.3 above shall also apply.

## 14 OPEN RATING

14.1 **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:

14.1.1 **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.

- 14.1.2 **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.
- 14.2 **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.
- 14.3 **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.

## 15 SINGLE PILOT OPERATIONS


- 15.1 **Minimum Requirements.** Single Pilot operations may be undertaken on helicopters provided the following minimum requirements are met:
- 15.1.1 The helicopter is certificated for single pilot operations.
- 15.1.2 Pilot has minimum PIC experience on type as follows:
- 15.1.2.1 Less than 2000 hrs on helicopters, with 100 hours PIC on type.
- 15.1.2.2 2000 hrs and above on helicopters, with 50 hours PIC on type.
- 15.1.3 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 15.1.2 above.
- 15.2 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.
- 15.3 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.
- 15.4 An operator shall specify Company policy on SPO in the Operations Manual.



(B. S. Bhullar)  
Director General of Civil Aviation

**Appendices**

- CA 43 - Conversion Report format, with suggested training exercises
- CA 44 - Skill Test / PPC and IT 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

 सत्यमेव जयते	<b>DGCA INDIA</b>		<b>CA - 43</b>	
	<b><u>SORTIE REPORT CONVERSION TRAINING</u></b>		<b>Page 1 of 2</b>	
	<b>EXERCISE No : _____</b>		<b>Rev 0</b>	<b>01 Jan 2017</b>
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.				
Signature and Seal of Examiner/Instructor				
<b>S</b> = Satisfactory	<b>U</b> = Unsatisfactory	<b>N</b> = Not Observed		<b>N/A</b> = Not Applicable
<b>Training Exercise</b>			<b>Proficiency</b>	
<b>Satisfactory Progress in Syllabus</b>		<b>Yes</b>	<b>No</b>	
<b><u>Remarks / Comments</u></b>				
Trainee's Signature and Licence Number			Examiner's Signature Licence Number and Seal	

**Training Exercises**

**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.




 सत्यमेव जयते	<b>DGCA INDIA</b>		<b>CA - 44</b>		
	<b>SKILL TEST / PILOT PROFICIENCY CHECK AND IR CHECK BY DAY / NIGHT MULTI / SINGLE ENGINE HELICOPTERS (Delete as Applicable)</b>			<b>Page 1 of 2</b>	
			Rev 0	01 Jan 2017	
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					
<b>S = Satisfactory</b>		<b>U = Unsatisfactory</b>		<b>N = Not Observed</b>	
<b>N/A = Not Applicable</b>					
<b>Check</b>		<b>Proficiency</b>		<b>Check</b>	
<b>Proficiency</b>		<b>Check</b>		<b>Proficiency</b>	
<b>1. Ground Checks</b>		<b>4. Departure</b>			
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		<b>5. Climb and Circuit Flying</b>			
1.6. Knowledge of Air Traffic Procedures		5.1 Maintenance of best climb speed / best rate of climb / climb attitude			
<b>2. Pre Flight Procedures</b>		5.2 Power adjustment during climb			
2.1 Pre flight inspection		5.3 Maintenance of circuit flying parameters			
2.2 Use of checklists		<b>6. Climb and Air Work</b>			
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			
<b>3. Hover</b>		<b>7. Approach and Landing</b>			
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)			
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			
<b>Check</b>				<b>Proficiency</b>	

<b>8. In flight Emergencies</b> (at least three)	
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	
<b>9. General Flight Ability</b>	
9.1 Radio Communication Procedures	
9.2 Situational Awareness and Decision Making	
9.3 CRM and Crew Coordination	

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

 मृत्युमैत्रेय जयते	<b>DGCA INDIA</b>		<b>CA - 45</b>	
	<u><b>INSTRUMENT RATING TEST / CHECK</b></u> <u><b>BY DAY / NIGHT</b></u> <u><b>FOR INITIAL AWARD / RENEWAL OF INSTRUMENT</b></u> <u><b>RATING</b></u>		Page 1 of 2	
			Rev 0	01 Jan 2017
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				
<b>S</b> = Satisfactory		<b>U</b> = Unsatisfactory		<b>N</b> = Not Observed
				<b>N/A</b> = Not Applicable
Check		Proficiency		Check
Proficiency		Proficiency		Proficiency
<b>1. Ground Checks</b>		<b>3. Hover, Taxi and Departure</b>		
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		<b>4. Climb and Air Work</b>		
1.5. Knowledge of Emergency Procedures		4.1 Maintenance of V <sub>y</sub> and power adjustment during climb.		
1.6. Knowledge of Air Traffic Procedures		4.2 Recovery from unusual attitudes		
<b>2. Pre Flight Procedures</b>		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		<b>5. Approach and Landing</b>		
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
<b>6. In flight Emergencies (at least three)</b>	
6.1 Engine Fire (call out actions only)	
(b) 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) <span style="float: right;">(at least two)</span>	
(g) At Hover	
(h) Shortly before reaching TDP/DPATO (ME only)	
(i) Shortly after reaching TDP/DPATO (ME only)	
(j) In cruise	
(k) Go round / landing – failure before LDP/DPBL (ME only)	
(l) 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	
<b>7. General Flight Ability</b>	
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>
<p style="text-align: center;">Pilot is / is not recommended for initial award / renewal of Instrument Rating on _____ helicopter.</p> <p style="display: flex; justify-content: space-between; margin-top: 20px;"> <span>Pilot's Signature</span> <span>Examiner's Signature</span> </p>

 सत्यमेव जयते	DGCA INDIA		CA - 46	
	<u>LINE CHECK / ROUTE CHECK / BY DAY / NIGHT</u> <u>MULTI / SINGLE ENGINE HELICOPTERS</u>		Page 1 of 2	
			Rev 0	01 Jan 2017
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
<b>1. Ground Checks</b>				4.5 Nav systems and radios set up
1.1. Status of recurrent training				4.6 Taxi / Hover Taxi
1.2. Simulator and/or Flying Training (as applicable)				4.7 Use of landing light (night only)
1.3. Knowledge of Flight Manual, Limitations and Performance				4.8 Departure briefing and RT procedures
1.4. Knowledge of Flight Planning, Mass & Balance, Density Altitude				<b>5. Hover</b>
1.5. Knowledge of Emergency Procedures				5.1 Hover over spot
1.6. Knowledge of SOPs and Air Traffic Procedures				5.2 Power assurance checks, as applicable
<b>2. Flight Preparation</b>				<b>6. Departure</b>
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)
<b>3. Flight Planning</b>				<b>7. Enroute</b>
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
<b>4. Pre Flight</b>				<b>8. Approach and Landing</b>
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
<b>9. In flight Emergencies</b> (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)	
(c) 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) <span style="float: right;">(at least two)</span>	
(m) At Hover	
(n) Shortly before reaching TDP/DPATO (ME only)	
(o) Shortly after reaching TDP/DPATO (ME only)	
(p) In cruise	
(q) Go round / landing – failure before LDP/DPBL (ME only)	
(r) 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	
<b>10. General Flight Ability</b>	
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


 मृत्यमश्नुते जयते	<b>DGCA INDIA</b>		<b>CA - 47</b>	
	<b>OFFSHORE LINE CHECK MULTI ENGINE HELICOPTERS</b>		<b>Page 1 of 2</b>	
			<b>Rev 0</b>	<b>01 Jan 2017</b>
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				
<b>S = Satisfactory</b>		<b>U = Unsatisfactory</b>		<b>N = Not Observed</b>
<b>N/A = Not Applicable</b>				
<b>Check</b>		<b>Proficiency</b>		
<b>1. Ground Checks</b>		<b>4. Departure</b>		
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		<b>5. Enroute</b>		
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		
<b>2. Pre Flight</b>		5.3 Position reporting		
2.1 Navigation, flight planning and altitude selection		<b>6. Approach and Landing</b>		
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		<b>7. Turn Around</b>		
<b>3. Hover</b>		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		
<b>Check</b>		<b>Proficiency</b>		

<b>8. In flight Emergencies</b> (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)	
(d) 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)	
(s) At Hover	
(t) Shortly before reaching TDP/DPATO (ME only)	
(u) Shortly after reaching TDP/DPATO (ME only)	
(v) In cruise	
(w) Go round / landing – failure before LDP/DPBL (ME only)	
(x) 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	
<b>9. General Flight Ability</b>	
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




 मन्यभवे जयते	<b>DGCA INDIA</b>		<b>CA - 48</b>	
	<b><u>SPECIAL VFR TRAINING</u></b>		<b>Page 1 of 2</b>	
			<b>Rev 0</b>	<b>01 Jan 2017</b>
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				
<b>S = Satisfactory</b>		<b>U = Unsatisfactory</b>		<b>N = Not Observed</b>
<b>N/A = Not Applicable</b>				
<b>Check</b>		<b>Proficiency</b>		<b>Check</b>
<b>Proficiency</b>		<b>Check</b>		<b>Proficiency</b>
<b>1. Ground Checks</b>		<b>3. Hover and Departure</b>		
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		<b>4. Climb and Air Work</b>		
1.5. Knowledge of Emergency Procedures		4.1 Maintenance of V <sub>y</sub> and power adjustment during climb.		
1.6. Knowledge of Special VFR and Air Traffic Procedures		4.2 Recovery from unusual attitudes		
<b>2. Pre Flight Procedures</b>		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		<b>5. Approach and Landing</b>		
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		
<b>Check</b>				<b>Proficiency</b>

<b>6. In flight Emergencies (at least three)</b>	
6.1 Engine Fire (call out actions only)	
(e) 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)	
(y) At Hover	
(z) Shortly before reaching TDP/DPATO (ME only)	
(aa) Shortly after reaching TDP/DPATO (ME only)	
(bb) In cruise	
(cc) Go round / landing – failure before LDP/DPBL (ME only)	
(dd) 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	
<b>7. General Flight Ability</b>	
7.1 Radio Communication Procedures	
7.2 Situational Awareness and Decision Making	
7.3 CRM and Crew Coordination	

Result of Check	Passed	Failed
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<b><u>Remarks / Comments</u></b>	
Pilot's Signature	Examiner's Signature

 सत्यमेव जयते	<b>DGCA INDIA</b>		<b>CA - 49</b>	
	<b>LINE CHECK (HILL OPS)</b> <b>MULTI / SINGLE ENGINE HELICOPTERS</b>		<b>Page 1 of 2</b>	
			Rev 0	01 Jan 2017
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				
<b>S = Satisfactory</b>		<b>U = Unsatisfactory</b>		<b>N = Not Observed</b>
<b>N/A = Not Applicable</b>				
<b>Check</b>		<b>Proficiency</b>		
<b>1. Ground Checks</b>		<b>4.4 Engine Starting Procedures</b>		
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		<b>5. Hover</b>		
1.6. Knowledge of SOPs and Air Traffic Procedures		5.1 Hover over spot		
<b>2. Flight Preparation</b>		5.2 Power assurance checks, as applicable		
2.1 Weather situation and charts, weather forecast		<b>6. Departure</b>		
2.2 Winds and temperatures		6.1 Normal takeoff (clear heliport)		
2.3 Freezing level / altitude		<b>7. Enroute</b>		
<b>3. Flight Planning</b>		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		<b>8. Approach and Landing</b>		
<b>4. Pre Flight</b>		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				
<b>Check</b>				<b>Proficiency</b>

<b>9. In flight Emergencies</b> (at least three, only if no passengers onboard, in case passengers are onboard only call out the actions)	
9.1 Engine Fire (call out actions only)	
(f) 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)	
(ee) At Hover	
(ff) Shortly before reaching TDP/DPATO (ME only)	
(gg) Shortly after reaching TDP/DPATO (ME only)	
(hh) In cruise	
(ii) Go round / landing – failure before LDP/DPBL (ME only)	
(jj) 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	
<b>10. General Flight Ability</b>	
10.1 Radio Communication Procedures	
10.2 Situational Awareness and Decision Making	
10.3 CRM and Crew Coordination	

<b>Result of Check</b>	<b>Passed</b>	<b>Failed</b>
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<u>Remarks / Comments</u>	
Pilot's Signature	Examiner's Signature

 मह्यमेव जयते	<b>DGCA INDIA</b>		<b>CA - 50</b>	
	<b><u>LINE CHECK – ELO / HHO / HEMS</u></b> <b><u>MULTI / SINGLE ENGINE HELICOPTERS</u></b>		<b>Page 1 of 2</b>	
			<b>Rev 0</b>	<b>01 Jan 2017</b>
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				
<b>S = Satisfactory</b>		<b>U = Unsatisfactory</b>		<b>N = Not Observed</b>
<b>N/A = Not Applicable</b>				
<b>Check</b>		<b>Proficiency</b>		<b>Check</b>
<b>Proficiency</b>		<b>Check</b>		<b>Proficiency</b>
<b>1. Ground Checks</b>		<b>Pre Flight (contd..)</b>		
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		<b>5. Hover</b>		
<b>2. Flight Preparation</b>		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		<b>6. Departure</b>		
2.3 Preparation of ELO/HHO/HEMS equipment; pre-flight checks		6.1 Role take-off (ELO/HHO/HEMS)		
<b>3. Flight Planning</b>		<b>7. Enroute</b>		
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)		
<b>4. Pre Flight</b>		<b>8. Approach and Landing</b>		
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		
<b>Check</b>		<b>Proficiency</b>		
<b>9. In flight Emergencies (at least three)</b>				

9.1 Engine Fire (call out actions only)	
(g) 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)
(kk) At Hover	
(ll) Shortly before reaching TDP/DPATO (ME only)	
(mm) Shortly after reaching TDP/DPATO (ME only)	
(nn) In cruise	
(oo) Go round / landing – failure before LDP/DPBL (ME only)	
(pp) 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	
<b>10. General Flight Ability</b>	
10.1 Radio Communication Procedures	
10.2 Situational Awareness and Decision Making	
10.3 CRM and Crew Coordination	

<b>Result of Check</b>	<b>Passed</b>	<b>Failed</b>
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<u>Remarks / Comments</u>	
Pilot's Signature	Examiner's Signature