GOVERNMENT OF INDIA

OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION

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CIVIL AVIATION REQUIREMENT
SECTION 8 –AIRCRAFT OPERATIONS
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SUB : HELICOPTER FLIGHT CREW TRAINING

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 pilots operating helicopters in commercial air transportation.

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 at least one member 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 Shall include knowledge and skills related to the operational use of head-up display and/or enhanced vision systems for those helicopters so equipped; and

3.7.7 Be given on a recurrent basis, as determined by DGCA and shall include an examination to determine competence.

3.8 The requirement for recurrent flight training in a particular type of helicopter shall be considered fulfilled by:

3.8.1 The use, to the extent deemed feasible by DGCA, of flight simulation training devices approved by DGCA for that purpose; or

3.8.2 The completion within the appropriate period of the proficiency check required in that type of helicopter.

3.9 **Recent experience — Pilot-in-Command and Co-pilot**. An operator shall not assign a Pilot-in-Command or a 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.

3.10 **Pilot-in-Command Operational Qualification**.

3.10.1 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 3.10.2 and 3.10.3.

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

(a) 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

(b) 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.

3.10.3 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.

3.10.4 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.

3.10.5 An operator shall not continue to utilize a pilot as a Pilot-in-Command on an operation unless the pilot continues to meet recurrent training requirements in accordance with Para 10.

3.11 **Flight crew equipment**. A flight crew member assessed as "Fit to exercise the privileges of a licence, subject t**o** the use of suitable correcting lenses", shall have a spare set of the correcting lenses readily available when exercising those privileges.

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

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

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

3.13.2 Both pilots shall hold current Instrument Rating on type.

Note : The requirement at 3.13.2 above shall not apply when the PIC is a TRE/TRI and the second pilot is undergoing IR training/test. Such checks / training shall not be carried out in a revenue flight.

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 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 crew resource management (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 introductory CRM training course, as mentioned vide Ops Circular 3 of 2004.

5.3 Initial CRM course training shall be conducted by an approved GTO/ATO.

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 a DGCA approved 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.

6.1.2 In case no DGCA approved ATO is available for a particular type of helicopter in India or abroad, conversion on type may be carried out by undergoing a prescribed ground and flying training syllabus under the aegis of a DGCA approved TRI/TRE. The conduct of such training shall be approved by DGCA on a case-to-case basis. In this case, the pilot shall pass the prescribed DGCA 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 the DGCA for licence endorsement.

7. DIFFERENCES TRAINING

7.1 An operator shall ensure that a flight crew member completes Differences Training which requires additional knowledge and training on an appropriate training device or 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 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 13.10. Duration of Differences Training shall be as given by the OEM/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.

7.4 Policy for utilisation of the pilot on different variants of the same type shall be clearly outlined in the Operations Manual.

8. FAMILIARISATION TRAINING

8.1 An operator shall ensure that a flight crew member completes Familiarization Training when operating another helicopter of the same type or variant or when changing equipment and/or procedures on types or variants currently operated.

8.2 The operator shall specify the policy and quantum of such familiarisation training in the Operations Manual.

8.3 Familiarisation training in flight shall be carried out by a TRE/TRI/Check Pilot. Familiarisation training on ground may be carried out by TRE/TRI/Check Pilot/Chief Pilot or any experienced pilot nominated by the operator.

9. SPECIAL VFR TRAINING AND QUALIFICATIONS

9.1 **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.

9.2 **Ground Training and Test**.

9.2.1 **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.

(a) Use of nav aids.

(b) Use of landing aids.

(c) Spatial disorientation.

(d) CFIT, Situational awareness.

(e) Effects of monsoons.

(f) ATS in controlled airspace.

9.2.2 **Ground Test**. The ground training shall be followed by a written test; minimum pass percentage marks for the written test shall be 80%.

9.3 **Flying Training**. The flying training will cover the following: -

9.3.1 Basic Instrument procedures.

9.3.2 Navigation with airborne equipment and available radio aids.

9.3.3 Departure and Arrival procedures in controlled airspace.

9.4 **Special VFR Release Check.** The Special VFR Release Check shall be conducted only on a helicopter and in a control zone to cover all aspects of flying training.

9.5 **Minimum Duration of Flying Training and Release Check.** The duration of the flying training shall not be less than 2:15 hours. The flying training on the helicopter may be accordingly reduced to 1:00 hr, if 1:15 hrs is conducted on a DGCA approved FNPT/FTD/FFS. This shall be followed by a one-time Special VFR Release Check of not less than 0:45 hours duration on the helicopter.

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

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

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

9.9 **Exceptions**. Pilots holding current Instrument Rating or TRE/TRI or Flight Instructor Rating/ Assistant Flight Instructor Rating are not required to undergo the training and release check to operate Special VFR flights as long as they continue to hold such qualifications as mentioned, and the same remain valid.

10. RECURRENT TRAINING

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

10.1.1 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.

10.1.2 Recurrent training is conducted by the following personnel:

(a) Operator's Ground refresher training — by suitably type qualified TRE/TRI/Check Pilot/Chief Pilot. Refer Para 10.9.

(b) FSTD/Helicopter training — by a SFI for FSTD, Check Pilot/ Instructor/ Examiner for helicopter, as applicable.

10.1.3 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.

10.1.4 All flying training/checks will be carried out by DGCA approved Instructors/Examiners only. Route checks and 'Under Supervision' flying may be carried out by a Check Pilot.

10.1.5 In case a pilot is not current on type, he/she would be required to carry out recent experience as per Para 11.3 first, prior to undertaking Role recent experience flying. Role Checks for two special operations will not be combined together, e.g. Hill Ops check and ELO check cannot be carried out as one check.

10.1.6 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.

10.1.7 One time sanction to a company pilot for Training/Check/Test will be an exception rather than a rule. It will be granted only when no DGCA approved Instructor/Examiner for a particular helicopter type is available.

10.1.8 All operators must ensure that their DGCA approved Check Pilots, Instructors and Examiners are made available for Training/Checking/Testing of pilots on priority, when required.

10.1.9 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.

10.1.10 In case of clarification, if any, the matter will be referred to FSD (Helicopters) in DGCA HQs, New Delhi.

10.2 **Pilot's Proficiency Check (PPC).** An operator shall ensure that:

10.2.1 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. 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 1:45 hours when flown in a simulator, in such a case all mandatory exercises as mentioned in CA 44 and CA 45 shall be completed. The PPC shall not be carried out in a revenue flight.

10.2.2 The period of validity of a PPC shall be 6 months. PPC shall be performed twice within any period of one year. Any two such checks which are similar and which occur within a period of four consecutive months shall not alone satisfy this requirement.

10.2.3 All pilots shall undergo PPC on a FFS Level B/C/D or FTD 6/7 minimum once in two years. The duration of this check shall be 3:00 hrs for non IR pilots; PPC may be flown if due within the same duration along with the practice of those parts of emergencies such as touchdowns in engine failure, multiple system failures, tail rotor failure/control failure, loss of tail rotor effectiveness (LTE) etc. which cannot be practiced in actual flying. This duration shall be 5:00 hrs for IR pilots and in addition to above, practice IF shall be flown; an IR Check may also be flown if due within the same duration. In case a specific to type FFS B/C/D or FTD 6/7 is not available anywhere in the country or abroad, a PPC shall be flown on the helicopter, after prior approval of DGCA.

10.3 **Instrument Rating (IR) Check.** An operator shall ensure that:

10.3.1 Each flight crew member undergoes IR checks, if applicable to the type or helicopter being flown, to demonstrate his/her competence in carrying out normal, abnormal and emergency procedures under instrument flying conditions. An IR check for initial issue or renewal of IR may be carried out on a helicopter or FFS Level B/C/D or FTD 6/7 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.

10.3.2 IR Check may be combined with PPC, in which case the total duration shall not be less that 1:15 hours. 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 shall be 1:00 hour.

10.3.3 The period of validity of an instrument rating check shall be 12 months from the date of last instrument rating check.

10.4 **Line Check**. An operator shall ensure that:

10.4.1 Each flight crew member undergoes a Line Check once a year; this check may be carried out in revenue flights. A Line Check carried out on any one type flown by the pilot shall be considered to having met these requirements. Line Check shall comprise a check in the role that the pilot is regularly flying in i.e Mountain Flying/Offshore Flying, ~~ELO, HHO~~. The Line Check for ELO or HHO or HEMS shall be flown in a non revenue sortie and separately for each type flown by the pilot.

10.4.2 Pilots only flying in plains terrain shall undergo the line check in a similar manner comprising a route check.

10.5 **Night Flying Check and Night Route Check.** An operator shall ensure that:

10.5.1 When passengers are intended to be carried at night, each flight crew member 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.

10.5.2 A Night Flying Check may be carried out in a FFS Level B/C/D or FTD 6/7 specifically approved for the same.

10.6 **Ground Recurrent Training**.

10.6.1 An operator shall ensure that each flight crew member undergoes ground recurrent training at least once every 12 months under a TRE/TRI/Check Pilot/Chief Pilot (trained on type). The annual ground recurrent training shall be of minimum four hours duration and relevant to the type of helicopter being flown. If the training is conducted within three months prior to the expiry of the 12 months period, the next ground and refresher training must be completed within 12 months of the original expiry date of the previous ground and refresher training. This training shall include but not be limited to: -

(a) Rotorcraft Flight Manual.

(b) Helicopter systems and performance.

(c) Type emergencies and recovery actions.

(d) Aspects related to area of operation and weather patterns etc.

(e) Any changes to operating procedures/rules etc.

10.6.2

Training	Periodicity	Duration	Topics to be covered	Applicable to
Crew Resource Management Training	Once a year (**12** months)	½ day	As applicable	All pilots
Dangerous Goods Regulations Training	Once in two years (**24** months)	½ day	DGR	All pilots

Note : If the training is conducted within three months prior to the expiry of the 12/24 months period, the next ground and refresher training must be completed within 12/24 months of the original expiry date of the previous ground and refresher training.

10.6.3 **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.

11. RECENT EXPERIENCE

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

11.1.1 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.

11.1.2 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.

11.2 **General Conditions**.

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

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

11.3 **Recent Experience Requirements**.

Break in Flying	Ground Refresher	Flying training with TRE/TRI		Route Check and/or IR Check	Before flying SPO or multicrew PIC	
		Helicopter **OR** FFS Level B/C/D or FTD 6/7			PIC with copilot	As copilot
Day Flying – Helicopters with AUW <= 5700 kg						
60 to 89 days	Applicable only to pilots with < 1000 hrs PIC on helicopters				-	0:45
90 to 179 days	1:00	3 TOL as PIC with an experienced copilot	1 session Total 0:45 hr	-	-	-
180 days to less than One year	2:00	PPC (3TOL) 0:45	2 sessions Total 1:30	-	1:00	-
1 year to less than 2 years	3:00	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	-
Day Flying – Helicopters with AUW > 5700 kg						
60 to 89 days	Applicable only to pilots with < 1000 hrs total flying				-	0:45
90 to 179 days	1:00	3 TOL as PIC with an experienced copilot	1 session Total 0:45	-	-	-
180 days to less than One year	2:00	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	3:00	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	-	-
Night Flying – All Helicopters						
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	Skill Test (3TOL) 0:45	2 sessions Total 1:30	-	-	1:00
2 years and more	2:00	Skill Test (5TOL) 1:00	2 sessions Total 2:00	-	-	2:00

Notes.
1. "TOL" means 'Takeoffs & Landings'.
2. Dual sorties, PPC, IR Check may be carried out by TRE/TRI.
3. Route Check may be carried out by TRE/TRI/Check Pilot
4. Skill Tests shall be carried out by TRE only.
5. Ground Refresher may be carried out by TRE/TRI/Check Pilot/Chief Pilot.
6. Recency by Day shall be carried out before commencing Recency by Night.
7. The pilot should hold current IR on type before undertaking night flying in IFR.

12. 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)

12.1 **Hill/Mountain Flying Operations**.

12.1.1 **Training Requirements**. Dual training mentioned in the table below may be carried out either on the helicopter or on an FFS Level B/C/D or FTD 6/7 which is cleared for hill operations training. Upto 50% of dual flying training may be carried out on FFS B/C/D or FTD 6/7 specifically cleared for the purpose. However, Hill Ops Checks shall be carried out only on the helicopter. The dual training mentioned below may be carried out in revenue flights.

Total Flying Hours	**Experienced in Hills/Mtns**	**No previous experience**
Less than 2000 hrs total flying experience on helicopters	2 hrs Dual training with TRE/TRI + Hill Ops Check 0:45 hrs	Ground Training + 15 hrs Dual training with TRE/TRI + Hill Ops Check 0:45 hrs
2000 hrs and above total flying experience on helicopters	1 hr area familiarisation as a co-pilot with a hill cleared experienced pilot + Hill Ops Check, if due.	Ground Training + 10 hrs Dual training with TRE/TRI + Hill Ops Check 0:45 hrs

12.1.2 Pilot with more than 2000 hours total flying experience on helicopters and with previous experience in hill/mountain/high altitude flying, when newly inducted into a sector, shall carry out minimum 2 hours of area familiarisation as co-pilot with hill cleared experienced pilot. Hill Ops Check shall be undertaken if due, before undertaking PIC flying.

12.1.3 Operator shall ensure that Hill Ops Check is valid prior to nominating a pilot as PIC in hills/mountains/high altitude.

12.1.4 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.

12.1.5 **Ground Training**. The ground training specific to hill/mountain/high altitude 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:

(a) Density altitude and performance consideration.

(b) Effects of decreased air density on engine and airframe.

(c) Type performance - Manufacturer's Flight Manual.

(d) Physiological Effects - lack of oxygen and external horizon.

(e) 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.

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

(g) Actions when caught in a down draught, ridge crossing and valley flying.

(h) Wind assessment.

(i) Meteorological peculiarities of the area of operations and its effect on helicopter operations.

(j) Winter operations including Helicopter Icing.

(k) High altitude operations and effects on helicopter performance.

12.1.6 **Recurrent Training.** A pilot intending to operate in hills/mountains shall undergo periodical recurrent training of a Hill Ops Check flight of minimum duration 0:45 hrs, once in a year, with a TRE/TRI.

(a) 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 dual 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.

(b) 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 one dual flight with TRE/TRI of 1:30 hr, followed by a Hill Ops Check of 0:45 hrs on the helicopter with a TRE/TRI.

12.2 **Offshore Operations**

12.2.1 **Ground Training**. A capsule conducted at a DGCA approved training establishment or by a DGCA approved Instructor/Examiner covering at least the following: -

(a) Flight Manual/ technical manuals.

(b) Operations Manual including CRM.

(c) Aeronautical publications - AICs, CAOs, CAR, AIP, etc.

(d) Local procedures and instructions.

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

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

(b) Should undertake Offshore Conversion Training with an instructor/examiner consisting of minimum 10 hrs of dual flying. 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 dual, and a check sortie of 1:00 hr with a role qualified TRE/TRI. Offshore Conversion 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.

(c) 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.

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

(e) 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 Copilot multi offshore 200 Hrs on type	500 Hrs Copilot 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)

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

12.2.3 **Offshore Command Training**

(a) Before being cleared as PIC in offshore operations, the pilot under training must have carried out a minimum of 20 hrs of dual flying including minimum 15 landings on fixed platforms/jack up rigs, and five landings on floaters, with a role qualified TRE/TRI.

(b) For pilots previously cleared (on a different type) as PIC in offshore operations meeting all requirements stated in Para 13.2.2 (e) above

and have minimum 100 hrs PIC on type, the requirement shall be a minimum of 2:00 hrs of dual, and a check sortie of 1:00 hr with an examiner.

(c) 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 an instructor/examiner and subsequently another check sortie with an examiner.

(d) Pilots engaged in regular night offshore operations shall carry out at least 5 take offs and landings on helidecks and one route-flying sortie by night, in the preceding 6 months.

(e) Proficiency check of a pilot shall be carried out for the capacity in which he is regularly flying.

12.2.4 **Recurrent Role Training**. A pilot engaged in offshore operations shall undergo periodical recurrent role training consisting of one sortie of minimum duration 0:45 hrs, once in a year with minimum three landings on a helideck with an instructor/examiner. The training may be combined with the Route Check of a pilot.

(a) 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 landings at minimum three landings on a helideck with an instructor/examiner before being permitted for independent operations. Alternately this sortie may be performed in a FFS Level B/C/D or FTD 6/7 approved for the same, with a SFI.

(b) A previously cleared pilot who has not carried out offshore operations in the last 24 months or more shall undergo one dual flight with an instructor/examiner of 1:00 hrs consisting of landings at minimum three landings on a helideck with an instructor/examiner, alternately this sortie may be performed in a FFS Level B/C/D or FTD 6/7 approved for the same, with a SFI. This shall be followed by a Skill Test on the helicopter with an examiner, of minimum duration of 0:45 hrs with three landings on a helideck.

12.3 **External Load Operations (ELO)**

12.3.1 **Training Requirements**.

Total Flying Hours	Experienced in ELO	No previous experience

Less than 2000 hrs	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
2000 hrs and above	1 hr familiarisation as a copilot with an ELO cleared experienced pilot + ELO Check, if due.	Ground Training + 1 hr Dual training with TRE/TRI + ELO Check 0:45 hrs

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

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

12.3.3 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.

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

12.3.5 **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: -

(a) Aerodynamic considerations.

(b) Knowledge of sling / swing equipment, its operation and limitations given in the operation manual.

(c) Preparation of load-sheet, rigging or its attachments.

(d) Emergencies for the particular type of operations.

(e) Fitting and use of the equipment.

(f) Preparing the helicopter and load for ELO.

(g) Normal and emergency procedures by day and, when required, by night.

(h) Crew co-ordination concept specific to ELO.

(i) Practice of ELO procedures.

(j) The dangers of static electricity discharge.

12.3.6 **Recurrent/Recency Training.** A pilot intending to operate regular ELO shall undergo an ELO Check flight of minimum duration 0:45 hrs with at least two ELO lifts, once in a year, with a TRE/TRI.

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

(b) 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 a ELO Check of 0:45 hrs on the helicopter with a TRE/TRI, prior to being permitted independent operations.

12.4 **Helicopter Hoist Operations (HHO)**

12.4.1 **Training Requirements.**

Total Flying Hours	**Experienced in HHO**	**No previous experience**
Less than 2000 hrs	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
2000 hrs and above	1 hr familiarisation as a co-pilot with an HHO cleared experienced pilot + HHO Check, if due.	Ground Training + 1 hr Dual training with TRE/TRI + HHO Check 0:45 hrs

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

12.4.3 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.

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

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

12.4.6 **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: -

(a) Aerodynamic considerations.

(b) Knowledge of hoist equipment, its operation and limitations given in the operation manual.

(c) Preparation of load-sheet, rigging or its attachments.

(d) Emergencies for the particular type of operations.

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

(f) Fitting and use of the hoist;

(g) Preparing the helicopter and hoist equipment for HHO;

(h) Normal and emergency hoist procedures by day;

(i) Crew co-ordination concept specific to HHO;

(j) Practice of HHO procedures; and

(k) The dangers of static electricity discharge.

(l) Normal and simulated emergency HHO procedures; and

(m) Crew co-ordination.

12.4.7 **Recurrent Training.** A pilot intending to operate regular HHO shall undergo an HHO Check flight of minimum duration 0:45 hrs, once in a year, with a TRE/TRI.

(a) 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.

(b) A previously cleared pilot who has not carried out HHO Flying in the last 24 months or more shall undergo one dual 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.

12.5 **Helicopter Emergency Medical Services (HEMS).** Refer Ops Circular 05 of 2015.

13. EXTENSION OF AIRCRAFT RATING

13.1 **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. Details of the prescribed training for conversion from one group onto another or from one type to another type in the same group are covered in the succeeding paragraphs.

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

(a) 1A - all single engine helicopters with reciprocating engines.

(b) 1B - all single engine helicopters with turbine powered engines.

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

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

13.2 **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.

13.3 **Flying Training Syllabus.** The syllabus for flying 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. In the absence of such prescribed syllabus, the minimum flying training as given in Para 13.6 below shall be followed, after prior approval of DGCA.

13.4 **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.

13.5 **Flying Training Exercises**. Specific exercises to be carried out during conversion training are given in the Flight Report format at Appendix A.

13.6 **Initial Conversion into a New Group where no ATO Syllabus Exists.** The summary of minimum flight instruction 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**		
Group From	**Group To**		**On Helicopter**	**Total**	**On Helicopter**	**Total**	
Any	1A (SEP)	5 hrs	2	6	4	6	Day 0:45 and Night 0:45
Any	1B	5 hrs	2	6	4	6	
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.

13.7 **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:

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

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

13.7.3 Using FTD 6/7. At least six hours of training including minimum four hours on helicopter is to be undertaken.

13.8 **IR Training/Extension.**

13.8.1 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, 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.

13.8.2 All pilots who have not held an IR previously are to undertake minimum 5:00 hours of IR training on the helicopter under a TRE/TRI or using FFS level B/C/D or FTD level 6/7 with a SFI, followed by an IR Check of minimum 1:00 hour with a TRE/TRI/SFI. The pilot shall then apply to the DGCA for IR endorsement on licence, with requisite documents.

13.9 For all Group 2 and Group 3 helicopters the pilot shall have 3 months experience and 100 hours flying on type before undergoing training on any new type.

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

1 **Type**	**2** **Helicopter**	**3** **Group**	**4** **Differential Training**	**5** **Licence Endorsement**
1. Agusta				
SE Turbine	A 119 KOALA	1B	(D)	A 119
	A 119 KX			
ME Turbine	A 109 A A 109 A ll A 109 C	2	(D)	A 109/ A 109 K/ A 109 E/ A 109 LUH/ A 109 S

	A 109 K2			
	A 109 LUH			
	A 109 E	2	(D)	AW 109
	A 109 S			
	AW 109 SP			
	AW 139	3		AW 139
3. Bell Helicopters				
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	1B	(D)	Bell 407/ 407 GX
	Bell 407 GX			
ME Turbine	Bell 212	2	(D)	Bell 212/ 412
	Bell 412 Bell 412 SP Bell 412 HP Bell 412 EP			
	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		(D)	Bell 222/ 230/ 430
	Bell 430			
	Bell 427	2		Bell 427
	Bell 429	2		Bell 429
4. EH Industries				
ME Turbine	EH 101	3		EH 101
5. Airbus Helicopters				

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			EC130
	EC 120			EC120
SE Turbine	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)	AS332/ 332L2/ EC 225LP
	AS 332 L2			
	EC 225 LP			
	AS 355 E AS 355 F AS 355 F1 AS 355 F2	2	(D)	AS 355/355N
	AS 355 N			
	EC 135 T1 CDS EC 135 P1 CDS	2	(D)	EC135
	EC 135 T1 CPDS EC 135 P1 CPDS			
	EC 135 T2 CPDS EC 135 P2 CPDS			
	MBB-BK 117 A-1 MBB-BK 117 A-3 MBB-BK 117 A-4 MBB-BK 117 B-1	2	(D)	BK117
	MBB-BK 117 B-2			
	MBB-BK 117 C-1		(D)	BK117
	MBB-BK 117 C-2			
	SA 365 N SA 365 N 1 AS 365 N2	2	(D)	SA 365 N/ AS 365 N
	AS 365 N3			
	AS 365 N3+			
	EC 155 B/B1			EC155
6. HAL				

SE Turbine	Chetak Cheetah	1B	(D)	SA 316/ 315
ME Turbine	DHRUV	2		DHRUV
7. Hughes/ Schweizer				
SE Piston	269 A 269 B 269 C 300 C 300 CB 300 Cbi	1A		HU269
SE Turbine	330 SP 33	1B		SC330
8. McDonnell Douglas				
SE Turbine	Hughes 369 D Hughes 369 E Hughes 369 HE Hughes 369 HS MD 500 N (NOTAR) MD 520 N MD 600	1B	(D)	HU369/ MD500N/ 600
ME Turbine	MD 900 MD 902	2	(D)	MD900/ 902
9. Robinson				
SE Piston	R 22 R 22A R 22 B	1A		R 22/ 22A/ 22B
	R 44 R 44 Raven R 44 Raven II	1A	(D)	R 44/ Raven/ Raven II
SE Turbine	R 66	1B		R 66
10.Sikorsky				
ME Turbine	S 76 A S 76 A+ S 76 A++ S 76 B S 76 C S 76 C+ S76 C++	2	(D)	S 76/ 76B/ 76C/ 76C+ / 76C++
	S 92 A	3		S 92A

11. Ministry of Aviation Industry of Russia				
ME Turbine	MiL Mi-8	3	(D)	Mi 8/ Mi 17/ Mi 171/ Mi172
	MiLMi 17 MiLMi 172			

Notes:

(i) If a dividing line exists in column 2, this indicates a variant.

(ii) The symbol (D) between variants of types of helicopter used in Column 4 indicates that Differential Training is required;

(iii) Although the license endorsement (Column 5) contains all helicopters listed in Column 2, the required familiarization or differential training has still to be completed

(iv) The specific variant on which the skill test for the type rating has been completed will be recorded accordingly in the Pilots Log Book.

14. REQUIREMENTS FOR FLYING MORE THAN ONE TYPE OF HELICOPTER

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

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

14.1.2 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

14.1.3 50 hours on each type, including minimum three take-offs and landings on type in the last 90 days; and

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

14.1.5 Meets the recurrent training requirements on type.

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

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

14.2.2 On the additional type he has not less than 50 hours flying before he can fly on another type.

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

14.3.1 Only one helicopter type during one duty period; and

14.3.2 On the additional type he has not less than 50 hours flying before he can fly on another type.

14.4 **Restrictions**.

14.4.1 No operator shall permit its flight crew to operate and no flight crew shall operate and maintain recent flying experience (within 90 days) on more than

three types of helicopters, of which not more than one type shall be with an AUW above 5700 Kgs.

14.4.2 **Combination of Helicopter and Aeroplane.** No operator shall permit and no flight crew shall operate more than one type of helicopter and one type of aeroplane (irrespective of their AUWs). Further provided that on the additional type he has not less than 50 hours flying before he can fly on both types.

15 OPEN RATING

15.1 **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:

15.1.1 **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.

15.1.2 **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.

15.2 **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 Instructor/Examiner in the pilot's Log Book, before he is released to exercise the privileges of his open rating on that type of helicopter.

15.3 **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 an experienced pilot who is current on type before flying as PIC.

16 SINGLE PILOT OPERATIONS

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

16.1.1 The helicopter is certificated for single pilot operations.

16.1.2 Pilot has minimum PIC experience on type as follows :

(a) Less than 2000 hrs on helicopters, with 100 hours PIC on type.

(b) 2000 hrs and above on helicopters, with 50 hours PIC on type.

16.1.3 **SPO Release Check.** An operator shall utilise a pilot to fly SPO on type only after he/she has completed the mandatory experience requirements mentioned at 16.1.2 above, followed by successful completion of a Release Check of minimum duration 0:45 hours to be carried out by a TRE/TRI.

16.1.4 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 16.1.2 above, followed by a Release Check as mentioned at Para 16.1.3 above.

16.2 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.

16.3 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 entered in the Pilot's Log Book.

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

Appendices

CA 43 - Conversion Report format, with suggested training exercises
CA 44 - Skill Test / PPC by Day/Night on ME/SE helicopters
CA 45 - Instrument Rating Test/Check
CA 46 - Onshore Route Check
CA 47 - Offshore Route Check
CA 48 - Special VFR Check
CA 49 - Hill Ops Check
CA 50 - ELO / HHO / HEMS Role Check

सत्यमेव जयते	**DGCA INDIA**	**CA - 43**	
	<u>SORTIE REPORT CONVERSION TRAINING EXERCISE No : _______</u>	**Page 1 of 2**	
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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 :

Signature and Seal of Examiner/Instructor

Briefed for flight. Documents checked and found satisfactory.

S = Satisfactory	**U** = Unsatisfactory	**N** = Not Observed	**N/A** = Not Applicable

Training Exercise	Proficiency

Satisfactory Progress in Syllabus	**Yes**	**No**

<u>Remarks / Comments</u>

Trainee's Signature and Examiner's Signature Licence Number Number and Seal	Licence

Training Exercises

1. General Handling.

(a) External and pre-start checks and start-up.

(b) Pick up, sit downs, hover and ground exercises.

(c) Taxy, 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, taxy & take off.

(d) Circuit and landing.

(e) Emergencies by night.

(f) Landing light management.

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	SKILL TEST / PILOT PROFICIENCY CHECK BY DAY / NIGHT MULTI / SINGLE ENGINE HELICOPTERS	Rev 0	__ Oct 2015

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
Signature and Seal of Examiner/Instructor	
Briefed for flight. Documents checked and found satisfactory. This check is valid upto (date)	

S = Satisfactory	**U** = Unsatisfactory	**N** = Not Observed	**N/A** = Not Applicable

Check	Proficiency	Check	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)	
1.3. Knowledge of Flight Manual, Limitations and Performance		4.3 Restricted area takeoff (steep angle or max power takeoff)	
1.4. Knowledge of Flight Planning, Mass & Balance		4.4 Category A takeoff (ME helicopter only), if applicable	
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. Air Work**	
2.3 Engine starting procedures		6.1 Level flight at different speeds	
2.4 Navigational systems and radios set-up		6.2 Level medium turns (10-15^{o} bank)	
2.5 RT procedures		6.3 Steep turns (30^{o} bank)	
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	
3.2 Power assurance check, as applicable		7.2 Steep Approach (day only)	
3.3 Spot turns and sideward/rearward taxi (day only)		7.3 Use of landing light on approach (night only)	
3.4 Pickups and sit downs		7.4 Quickstop (day only)	
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)	
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**

Remarks / Comments

Pilot's Signature
Examiner's Signature

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	INSTRUMENT RATING TEST / CHECK BY DAY / NIGHT FOR INITIAL AWARD / RENEWAL OF INSTRUMENT RATING	Rev 0	__ Oct 2015

Company	Date of check
Name of Pilot	Date of last check
Licence No	Block Time
Name of Examiner	Location
Licence No	Type of Helicopter
Signature and Seal of Examiner/Instructor	
Briefed for flight. Documents checked and found satisfactory. This IR Test/Check is valid upto (date)	

S = Satisfactory	**U** = Unsatisfactory	**N** = Not Observed	**N/A** = Not Applicable

Check	Proficiency	Check	Proficiency
4. Ground Checks		**3. Hover, Taxi and Departure**	
1.7. Status of recurrent training		3.1 Hover over spot and power assurance check	
1.8. Simulator and/or Flying Training (as applicable)		3.2 Taxi / hover taxi (including use of landing light by night)	
1.9. Knowledge of Flight Manual, Limitations and Performance		3.3 Instrument Departure	
1.10. Knowledge of Flight Planning, Mass & Balance		**4. Climb and Air Work**	
1.11. Knowledge of Emergency Procedures		4.1 Maintenance of V_y and power adjustment during climb.	
1.12. 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)	
(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) (at least two)	
(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	
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

Remarks / Comments

Pilot is / is not recommended for initial award / renewal of Instrument Rating on _____ helicopter.

Pilot's Signature
Examiner's Signature

	DGCA INDIA	CA - 46	
		Page 1 of 2	
	ONSHORE ROUTE CHECK BY DAY / NIGHT MULTI / SINGLE ENGINE HELICOPTERS	Rev 0	__ Oct 2015

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
Signature and Seal of Examiner/Instructor	
Briefed for flight. Documents checked and found satisfactory. This check is valid upto (date)	

S = Satisfactory	**U** = Unsatisfactory	**N** = Not Observed	**N/A** = Not Applicable

Check	Proficiency	Check	Proficiency
5. Ground Checks		4.5 Navigation systems and radios set up	
1.13. Status of recurrent training		4.6 Taxi / Hover Taxi	
1.14. Simulator and/or Flying Training (as applicable)		4.7 Use of landing light (night only)	
1.15. Knowledge of Flight Manual, Limitations and Performance		4.8 Departure briefing and RT procedures	
1.16. Knowledge of Flight Planning, Mass & Balance, Density Altitude		**5. Hover**	
1.17. Knowledge of Emergency Procedures		5.1 Hover over spot	
1.18. Knowledge of SOPs and Air Traffic Procedures		5.2 Power assurance checks, as applicable	
6. Flight Preparation		**6. Departure**	

6.1 Weather situation and charts, weather forecast		6.1 Normal takeoff (clear heliport)	
6.2 Winds and temperatures		6.2 Steep takeoff / max power takeoff	
6.3 Freezing level / altitude		6.3 Instrument Departure (IFR only)	
7. Flight Planning		**7. Enroute**	
7.1 Fuel calculation		7.1 Navigation – use of nav aids	
7.2 Performance calculation and altitude selection		7.2 Fuel management	
3.3 Payload calculation		7.3 Position reporting	
8. Pre Flight		**8. Approach and Landing**	
8.1 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)		
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) (at least two)		
(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		
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**

Remarks / Comments

Pilot's Signature
Examiner's Signature

	DGCA INDIA	**CA - 47**	
		Page 1 of 2	
	OFFSHORE ROUTE CHECK MULTI ENGINE HELICOPTERS	**Rev 0**	**__ Oct 2015**

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

Signature and Seal of Examiner/Instructor

Briefed for flight. Documents checked and found satisfactory.
This check is valid upto (date)

S = Satisfactory	**U** = Unsatisfactory	**N** = Not Observed	**N/A** = Not Applicable

Check	Proficiency	Check	Proficiency
9. Ground Checks		**4. Departure**	
1.19. Status of recurrent training		4.1 Normal takeoff / steep takeoff	
1.20. Simulator and/or Flying Training (as applicable)		4.2 Category A takeoff, is applicable	
1.21. Knowledge of Flight Manual, Limitations and Performance		4.3 Instrument Departure (IFR only)	

1.22. Knowledge of Flight Planning, Mass & Balance, Density Altitude		**5. Enroute**	
1.23. Knowledge of Emergency Procedures		5.1 Navigation – use of nav aids	
1.24. Knowledge of SOPs and Air Traffic Procedures		5.2 Fuel management	
10. 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 handdling	
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)		
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	
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**

Remarks / Comments

Pilot's Signature
Examiner's Signature

	DGCA INDIA	**CA - 48**
	SPECIAL VFR CHECK **FOR INITIAL SPECIAL VFR AUTHORISATION**	**Page 1 of 2**
		Rev 0 / **__ Oct 2015**

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

Signature and Seal of Examiner/Instructor

Briefed for flight. Documents checked and found satisfactory.
This Special VFR Check is valid upto (date)

S = Satisfactory	**U** = Unsatisfactory	**N** = Not Observed	**N/A** = Not Applicable

Check	Proficiency	Check	Proficiency
11. Ground Checks		**3. Hover and Departure**	
1.25. Status of recurrent training		3.1 Hover over spot and power assurance check	
1.26. Simulator and/or Flying Training (as applicable)		3.2 Simulated instrument departure	
1.27. Knowledge of Flight Manual, Limitations and Performance		3.3 Maintenance of visual contact with ground after takeoff	
1.28. Knowledge of Flight Planning, Mass & Balance		**4. Climb and Air Work**	
1.29. Knowledge of Emergency Procedures		4.1 Maintenance of V_y and power adjustment during climb.	
1.30. Knowledge of Special VFR and Air Traffic Procedures		4.2 Recovery from unusual attitudes	
12. Pre Flight Procedures		4.3 Maintenance of flight parameters with ref to instruments	
12.1 Navigation & Flight Planning		4.4 AFCS handling during air work, if applicable	
12.2 Pre Flight inspection		**5. Approach and Landing**	
12.3 Use of checklists		5.1 Preparation for an Instrument Approach Procedure	
12.4 Engine starting procedures		5.2 2D Non precision approach (VOR/DME)	
12.5 Navigational systems and radios set-up		5.3 3D Precision approach (ILS)	
12.6 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)	
(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	
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**

Remarks / Comments

Pilot's Signature
Examiner's Signature

	DGCA INDIA	**CA - 49**	
		Page 1 of 2	
	HILL OPS CHECK **MULTI / SINGLE ENGINE HELICOPTERS**	**Rev 0**	**__ Oct 2015**

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
Signature and Seal of Examiner/Instructor	

Briefed for flight. Documents checked and found satisfactory.
This check is valid upto (date)

S = Satisfactory	**U** = Unsatisfactory	**N** = Not Observed	**N/A** = Not Applicable

Check	Proficiency	Check	Proficiency
13. Ground Checks		4.4 Engine Starting Procedures	
1.31. Status of recurrent training		4.5 Navigation systems and radios set up	
1.32. Simulator and/or Flying Training (as applicable)		4.6 Taxi / Hover Taxi	
1.33. Knowledge of Flight Manual, Limitations and Performance		4.7 Departure briefing	
1.34. Knowledge of Flight Planning, Mass & Balance, Density Altitude		4.8 RT procedures	
1.35. Knowledge of Emergency Procedures		**5. Hover**	
1.36. Knowledge of SOPs and Air Traffic Procedures		5.1 Hover over spot	
14. Flight Preparation		5.2 Power assurance checks, as applicable	
14.1 Weather situation and charts, weather forecast		**6. Departure**	
14.2 Winds and temperatures		6.1 Normal takeoff (clear heliport)	
2.3 Freezing level / altitude		**7. Enroute**	
15. Flight Planning		7.1 Navigation – use of nav aids	
15.1 Fuel calculation		7.2 Fuel management	
15.2 Performance calculation and altitude selection		7.3 Position reporting	
3.3 Payload calculation		**8. Approach and Landing**	
16. Pre Flight		8.1 Reconnaissance,	
16.1 Navigation / choice of flight rules		8.2 wind direction and velocity.	
4.2 Pre flight inspection		8.3 Normal approach	
4.5 Use of checklists			

Check	**Proficiency**
9. In flight Emergencies (at least three)	
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	
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**

Remarks / Comments

Pilot's Signature
Examiner's Signature

	ROLE CHECK – ELO / HHO / HEMS MULTI / SINGLE ENGINE HELICOPTERS	**Rev 0**	**__ Oct 2015**

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

Signature and Seal of Examiner/Instructor

Briefed for flight. Documents checked and found satisfactory.
This Role Check is valid upto (date)

S = Satisfactory **U** = Unsatisfactory **N** = Not Observed **N/A** = Not Applicable

Check	Proficiency	Check	Proficiency
17. Ground Checks		**Pre Flight (contd..)**	
1.37. Status of recurrent training		4.6 Use of checklists	
1.38. Simulator and/or Flying Training (as applicable)		4.4 Engine Starting Procedures	
1.39. Knowledge of Flight Manual, Limitations and Performance		4.5 Navigation systems and radios set up	
1.40. Knowledge of Flight Planning, Mass & Balance		4.6 Taxi / Hover Taxi	
1.41. Knowledge of Emergency Procedures		4.7 Departure briefing and RT procedures	
1.42. Knowledge of Air Traffic Procedures		**5. Hover**	
18. Flight Preparation		5.1 Hover over spot	
18.1 Weather situation and charts, weather forecast		5.2 Power assurance checks, as applicable	
18.2 Winds and temperatures		**6. Departure**	
18.3 Preparation of ELO/HHO/HEMS equipment; preflight checks		6.1 Role takeoff (ELO/HHO/HEMS)	
19. Flight Planning		**7. Enroute**	
19.1 Fuel calculation		7.1 Navigation – use of nav aids	
19.2 Performance calculation and altitude selection		7.2 Fuel management and position reporting	
3.3 Payload calculation		7.3 Role management (ELO/HHO/HEMS)	
20. Pre Flight		**8. Approach and Landing**	
20.1 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)	
(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	
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**

Remarks / Comments

Pilot's Signature Examiner's Signature