



GOVERNMENT OF INDIA  
**OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION**  
TECHNICAL CENTRE, OPP SAFDURJUNG AIRPORT, NEW DELHI

**CIVIL AVIATION REQUIREMENTS**  
**SECTION 7 - FLIGHT CREW STANDARDS**  
**TRAINING & LICENSING**

**SERIES I PART IX**  
**24<sup>TH</sup> APRIL 2015**

**EFFECTIVE: 15 APRIL 2015**

F. No. AV. 22024/01/2013-FSD

Subject: **AUTHORIZATION OF SYNTHETIC FLYING INSTRUCTORS FOR HELICOPTERS**

**1. INTRODUCTION**

1.1. Modern technology enables most of the training and testing requirements of Flight Crew to be carried out on Flight Simulators. In order to ensure the standard of proficiency of Flight Crew being imparted simulator based training, testing and training on Flight Simulators should be carried out by DGCA approved Synthetic Flight Instructors (SFIs).

1.2. This Civil Aviation Requirement is issued under Rule 29C and Rule 133A of the Aircraft Rules 1937 and lays down the minimum requirements for the authorization of Synthetic Flight Instructors (Helicopters).

**2. PROCEDURE FOR SELECTION OF SFIs**

2.1. The pilot recommended for approval as SFI shall have good knowledge and communication skill for imparting training. He shall be free from prejudice and strong likes and dislikes. He shall be capable of recording fair assessment and known for his impartiality. He should be capable of instilling high standards of discipline among the aircrew and shall display balanced attitude towards them.

2.2. Operators while recommending the names of pilots for authorization as SFIs shall subject them to a process of selection, suitability tests and requisite training.

2.3. The Operators shall forward the names of pilots proposed as SFIs to FSD, DGCA. While seeking approval from DGCA, the Chief of Operations shall furnish a statement showing compliance of all the requirements of this CAR prior to commencement of the Instructor training course. Formal advice of the acceptability of each nominee SFI must be received from DGCA prior to commencement of the Instructor training course.

2.4. The pilots recommended for authorization as SFIs should have:

2.4.1. been rated as PIC on the aircraft type.

2.4.2. been an Examiner/ Instructor /SFI on any helicopter.

2.4.3. should not have tested alcohol positive during a pre/post flight medical check in the previous 3 years.

2.4.4. should not have been held blameworthy for an aircraft accident in the previous 3 years or an aircraft incident in the previous 1 year.

2.4.5. should have undergone a medical assessment by a doctor qualified in Aviation Medicine on suitability for simulator instructional duties that will address;

- Physical ability
- Visual and colour perception
- Hearing

Note: The medical assessment will be obtained again by the operator in case of any change in the medical status of the SFI. In addition to entry requirements, the medical assessment above shall be conducted annually for SFIs above the age of 70 years.

2.4.6. After completion of training, the completed records shall be submitted to FSD, DGCA for authorization as SFI.

### **3. REQUIREMENTS OF FLYING EXPERIENCE**

3.1. An applicant for SFI approval should hold or have held CHPL/ ATPL (H) and Pilot-in-Command rating on the helicopter type for which the approval is sought. Pilots who are currently not flying because of having attained the maximum permissible age limit for Professional Pilots or being medically unfit to fly, or due to any other reason, but meeting all the other requirements of this CAR, can also be approved as SFI. Such pilots shall not have any ailment which may impair their ability to function as SFI. Breakdown of flying experience requirements is as follows:

- |      |                          |   |             |
|------|--------------------------|---|-------------|
| (i)  | Total Flying Experience  | - | 2,500 hours |
| (ii) | Total Command Experience | - | 1,500 hours |

### **4. TRAINING OF SFIs**

4.1. The pilots recommended for authorization as SFIs shall undergo the stipulated ground training and satisfactory checks on an approved simulator with a type rated examiner. The minimum training requirements are given at Appendix A.

4.2. The pilots trained as SFIs shall be checked for proficiency to conduct the duties of SFI from the Instructor's console by a DGCA Flight Inspector. The pilots

who fail in the proficiency check should not be recommended for the respective approval for a period of three months.

4.3. Final release check of the trainee SFI shall be carried out by a DGCA Flight Inspector.

4.4. The record of successful completion of training and checks shall be maintained by the operator and may be scrutinized by DGCA at any time.

**5. PRIVILEGES OF SFIs**

5.1. Training of PIC/ co-pilots for Type rating.

5.2. Training for issue/ renewal of Instrument rating.

5.3. Recurrent training, as applicable.

*Note: Special operations training can be imparted by the SFI provided he has observed and conducted applicable special operations training simulator session with an Instructor qualified to conduct such training.*

**6. VALIDITY AND RENEWAL OF SFIs**

6.1. Unless revoked or suspended, the authorization of the SFI shall remain valid for a period of five years from the date of issue of authorization so long as the pilots continue to meet the applicable requirements of this CAR and remain in the employment of the operator who has obtained the authorization.

6.2. For continued validity of the approval, the SFI shall meet the following requirements: -

6.2.1. He should have conducted during the preceding 6 months at least one complete Type Rating Training Profile on the applicable type of simulator/ helicopter; or

6.2.2. A minimum of six Simulator Training Sessions/ three training or check flights on the type of helicopter.

6.3. The DGCA authorized SFIs shall be required to undergo assessment of their continued proficiency in carrying out their privileges as Instructors. Such assessment shall be carried out in the simulator as a "Instructor Standardization Check" once in two years by a DGCA Flight Inspector/ DGCA approved Examiner, record of which will be forwarded to FSD.

6.4. In case the validity lapses due to any reason, the SFI will need to undergo a Standardization Check with a DGCA Flight Inspector/ DGCA approved Examiner.

6.5. If the SFI is not currently operating the type of helicopter, he should have: -

6.5.1. Observed conduct of 02 sessions conducted by another DGCA approved SFI on type every 12 months; and

6.5.2. Undergone a Standardization Check with a DGCA Flight Inspector/ DGCA

approved Examiner on type in the last six months.

6.6. The SFI shall maintain his log book giving information regarding the training imparted by him, his own training and checks and the familiarization simulator sessions undertaken.

6.7. Renewal of SFI authorization shall be accorded after submitting the following documents by the operators at least three month in advance.

6.7.1. Copy of original approval as SFI and valid medical assessment.

6.7.2. Record of standardization checks.

6.7.3. Record of training done in last 24 months.

6.8. The request will be examined at FSD, and if found satisfactory, a DGCA Flight Inspector will assess the proficiency as in para 4.3 above following which the authorization may be extended for another 5 years.

## **7. WITHDRAWAL OF SFI PRIVILEGES**

7.1. Privileges granted to a pilot as an SFI may be withdrawn by the DGCA if the pilot is found lacking in any of the requirements. Besides, a Board consisting of the Chief of Operations and Chief of Training of the operator may also recommend to the DGCA, withdrawal of privileges as SFI in respect of any SFI giving adequate justification.

7.2. SFI privileges may be withdrawn by the DGCA, in part or in whole, for due cause. In these cases, the DGCA Flight Standards Directorate will issue a written notification of withdrawal of privileges to the SFI concerned, and also inform the applicable Operator(s). The DGCA may withdraw an SFI's authority if evidence shows that an Instructor has:

7.2.1. At any time, acts in a manner which is in contravention of the guidelines contained in this CAR;

7.2.2. Failed to follow the applicable instructions to maintain the required standards, or to follow proper procedures;

7.2.3. Fraudulently misused Instructor authority, or acted in any other way that would discredit the DGCA;

7.2.4. Breached the DGCA Civil Aviation Rules and Regulations; or

7.2.5. While imparting a Proficiency Check or Standardization Check failed to meet the required DGCA Standards; or

7.2.6. While undergoing a Standardization Check, failed to meet the required DGCA Standards. The SFI will be informed verbally, immediately upon completion of the Standardization Check, or the Inspector may stop the check at the time an overall failure is awarded.

7.3. Except where there is an immediate threat to safety, the DGCA, prior to making a final decision in the matter of withdrawal of an Instructor's authority, shall ensure the matter has been investigated thoroughly; and the Instructor and, where applicable, the concerned Operator, have been given a formal opportunity to respond to the allegations, either verbally or in writing.

## **8. GENERAL**

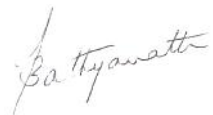
8.1. Pilots holding existing SFI approvals as on date of issue of this CAR may be authorized as SFIs without the need for additional training/ checks under "grandfather clause".

8.2. Type Rated Instructors/Examiners who are currently exercising the privileges as instructor /examiner on specific type may be authorised as SFIs without need for additional training/checks provided

8.2.1. they continue to meet all requirements needed to exercise privileges as instructor/examiner.

8.2.2. they have undergone familiarization training to operate Instructor Operating Station /console of the Simulator

8.2.3. they are familiarized with the training manual of the Training institute in which the SFI privileges are to be exercised.



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Appendix A

**MINIMUM TRAINING REQUIREMENTS FOR  
SYNTHETIC FLIGHT INSTRUCTORS**

**Ground Training**

1. Ground training shall consist of two parts;
  - 1.1. Technical theoretical knowledge instruction (technical training) comprising of minimum 12 hours training to include the revision of technical knowledge, the preparation of lesson plans and the development of classroom instructional skills to enable the Instructor to instruct the technical theoretical knowledge syllabus. For an SFI who is not current on type, an additional extended technical and performance refresher comprising of minimum 40 hours shall be carried out.
  - 1.2. Teaching and learning instruction (trainers course) comprising of minimum 40 hours training to cover;
    - 1.2.1. Learning process
    - 1.2.2. Teaching process
    - 1.2.3. Training philosophies
    - 1.2.4. Techniques of applied instruction
    - 1.2.5. Airborne instruction techniques
    - 1.2.6. Student evaluation and testing
    - 1.2.7. Training programme development
    - 1.2.8. Human performance and limitations relevant to flight instruction
    - 1.2.9. Training administration

**Simulator Training**

2. Simulator training shall be in two phases
  - 2.1. Phase I
    - 2.1.1. One simulator session of at least two hours from applicable instructor's seat and for the purpose of familiarisation and handling of normal, abnormal and emergency conditions especially in traffic circuits.
    - 2.1.2. Assessment check of at least two hours with the trainee SFI in the applicable instructor's seat, examiner in the other seat acting as a Pilot-under-training during which the trainee SFI shall demonstrate his skill in handling the aircraft in normal,

abnormal and emergency conditions and taking timely corrective actions.

2.2. Phase - II

2.2.1. The trainee SFI should observe a complete Type Rating training profile.

2.2.2. The trainee SFI should impart instructions under supervision of an SFI/ Instructor/ Examiner for a complete Type Rating training profile.

**Release Check**

3. Final release check of the trainee SFI shall be carried out by a DGCA Flight Inspector in a simulator.