

Advisory Circular

GUIDELINES FOR THE FLYING INSTRUCTOR (FI) TYPE RATING COURSE AND ALSO FOR REACTIVATION, CHANGE OF AIRCRAFT TYPE AND RENEWAL OF THE FI RATING

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- 1. GENERAL.** Pursuant to paragraph 88B of the Air Navigation Order, the Director-General of the Civil Aviation Authority (DGCA) may, from time to time, issue Advisory Circulars (AC) on any aspect of safety in civil aviation. This AC contains information about the standards, practices and procedures acceptable to CAAS. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.
- 2. PURPOSE.** This Advisory Circular (AC) provides the guidance for the minimum content and standard for the FI (Type Rating) course.
- 3. APPLICABILITY.** This AC is applicable for all Training Organizations and AOC holders seeking approval for their FI (Type Rating) course for the initial grant and also for reactivation, change of aircraft type and renewal of the FI Rating.
- 4. CANCELLATION.** This AC supersedes AC FCL-8(0) dated 11 February 2014.
- 5. REFERENCES.** Singapore Air Navigation Order (ANO); Singapore Air Safety Publication Part 3 (SASP 3).
- 6. EFFECTIVE DATE.** This AC is effective from 5 March 2014.
- 7. INTRODUCTION.** Pursuant to paragraph 20(13)(a) of the ANO, any course of training or instruction must be approved by the Director-General of the Civil Aviation Authority of Singapore (DGCA). This AC contains information about the design, content, standard and organisation of an FI course acceptable to CAAS.

8. COURSE DESIGN.

8.1 There should be four parts to an FI course:

- A Pedagogical training and exercises
- B Handling, instructional and take-over skills
- C Simulator instructional practice to proficiency
- D Flying Instructor Rating Test

8.2 Depending on the entry level of the instructors, the instructor may not be required to complete certain parts of course. The entry levels and the necessary parts of the course to be completed as indicated in the table below.

Entry levels for FI course \ Parts of course	<u>Initial</u> (No instructor experience or FI lapsed >2 years)	<u>Lapsed</u> (FI lapsed ≤2 years)	<u>Change of Aircraft Type</u> (Current FI on changing aircraft type)	<u>Renewal</u> (Current FI)
A	Yes	No	No	No
B	Yes	Yes	Yes	Yes*
C	Yes	Yes**	Yes**	No
D	Yes	Yes	Yes	Yes

9. QUALIFICATIONS FOR SELECTION.

9.1 Reference to SASP 3 requirements, the minimum qualifications for FI (Type Rating) course are:

- (a) 500 hours as PIC on the applicable aircraft type for which the FI rating is sought
- (b) 25 line sectors as PIC on the applicable aircraft type

10. PART A - PEDAGOGICAL TRAINING AND EXERCISES.

10.1 The core instructional training should comprise of lectures, exercises and tutorials.

10.2 The aim of this part is to ensure that the instructor:

- (a) understands the concepts of TEM, MCC and CRM and be able to relate practical applications of TEM, MCC and CRM;
- (b) learns the techniques of briefing and debriefing and be able to facilitate effective learning for the students;
- (c) learns how to analyse problems and synthesise them into practical solutions for the students; and
- (d) learns how to write the student's report precisely and accurately.

10.3 The training should be conducted in no less than five days, consisting at least of:

- (a) The following lectures and discussion topics:
 - (1) Human factors and limitations
 - (2) Threat and Error Management
 - (3) Multi Crew Cooperation
 - (4) Crew Resource Management

- (b) The following exercises and tutorials:
- (1) Prepare resources
 - (2) Create climate conducive to learning
 - (3) Present knowledge
 - (4) Manage time
 - (5) Facilitate learning
 - (6) Conduct briefing and debriefing
 - (7) Assess performance
 - (8) Monitor and review progress
 - (9) Write reports

11. PART B - HANDLING, DEMONSTRATION AND TAKE-OVER SKILLS.

11.1 The aim of this part is to ensure the instructor is able to:

- (a) demonstrate and teach flying skills and techniques to the student from either pilot's seat; and
- (b) take-over appropriately from the student as if it was an actual aircraft flight.

11.2 There should be a minimum of two 4-hour sessions to train and assess the instructor on the applicable aircraft (simulator) type. By the end of these sessions, the instructor should be able to:

- (a) demonstrate competent flying skills in normal and abnormal flight conditions on each pilot's seat;
- (b) instruct flying maneuvers and techniques on each pilot's seat; and
- (c) be aware of the appropriate time to take over controls: not too early which may deprive the trainee of his learning opportunity yet not too late as to jeopardize the safety of the flight. The instructor training should be terminated if he is found to be weak in his judgment during the critical phases of flight

11.3 *Note: Part B can be abbreviated to one 4-hour session for renewals of current FI ratings.

12. PART C - SIMULATOR INSTRUCTIONAL PRACTICE TO PROFICIENCY

12.1 The aim of this part is to ensure the instructor is:

- (a) knowledgeable with the aircraft systems and its performance, normal and abnormal procedures;
- (b) able to make use of the simulator as a teaching tool through practicing of simulator instructional techniques and skills; and
- (c) capable to tailor instructions according to each student's proficiency levels (Tutoring skills).

12.2 To achieve the aim of this part the applicant should conduct at least five 4-hour simulator sessions. Each session is to include the briefing, conduct of session, debriefing and report writing. The tutors may act as "students" and provide critique after each session. Appropriate intervention by tutors as "students" to demonstrate how it should be done, during the conduct of the session, is permissible. The tutors must at least be an FI qualified on the aircraft type.

12.3 The exercises chosen for the sessions must be from the Type Rating training syllabus with at least one exercise on the demonstration and teaching of correct cross wind takeoff and landing.

12.4 **Note: Part C can be abbreviated to two 4-hour sessions if the applicant was already a qualified FI on another aircraft type or has his FI rating lapsed by less than two years on the applicable aircraft type.

13. PART D - FLYING INSTRUCTOR RATING TEST.

- 13.1 The aim of this part is to assess if the instructor meets the standards required for the holder of an FI rating.
- 13.2 This should be a 4-hour simulator session on two “students”. It should be a training detail from the Type Rating syllabus. The “students” can be actual students on a Type Rating course or tutors acting as “students”. This session must be evaluated by an AFE as a test to assess if the instructor is competent to be a FI (Type Rating).