



**Australian Government**  

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**Civil Aviation Safety Authority**

**Operational Standards and  
Requirements—Approved Synthetic  
Trainers (FSD2)**

Version 1.5: November 2010

## **Operational Standards and Requirements—Approved Synthetic Trainers (FSD2)**

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You should always refer to the applicable provisions of the Civil Aviation Act, Civil Aviation Regulations and Civil Aviation Orders, rather than this manual, to ascertain the requirements of, and the obligations imposed by or under, the civil aviation legislation.

**Version 1.5: November 2010**

# Operational Standards and Requirements—Approved Synthetic Trainers (FSD2)

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# Operational Standards and Requirements—Approved Synthetic Trainers (FSD2)

## Preface

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### Foreword

As a Commonwealth government authority, CASA must ensure that its decision-making processes are effective, fair, timely, transparent, consistent, properly documented and otherwise in accordance with the requirements of the law.

Most of the regulatory decisions CASA makes are such that conformity with authoritative policy and established procedures will be conducive to the achievement of these outcomes. From time to time, however, decision-makers will encounter situations in which the strict application of policy, in the making of a decision involving the exercise of discretion, would not be appropriate. Indeed, in some cases, the inflexible application of policy may itself be unlawful.

This preface and the following Introduction, explains the way in which the policy and processes set out in this manual are to be used by all CASA's personnel when making decisions in the performance of their functions, the exercise of their powers and the discharge of their duties. It also explains the processes to be followed if it appears that a departure from policy is necessary or appropriate.

### *Mandatory Use of Policy and Procedure Manuals*

This manual is one of the set of manuals and other documents which comprise CASA's authorised document set. The authorised document set contains the policy, processes and procedures with which CASA personnel are expected to comply when performing assigned tasks. All CASA personnel are required to have regard to the policies set out in this manual. Except as described in the Introduction, CASA decision-makers should not depart from these policies, processes and procedures.



John F. McCormick  
Director of Aviation Safety



## Introduction

### Regulatory Decision Making

Where the legislation provides for one, and only one decision—the “correct” decision—is the only decision open to CASA. However, most of the decisions CASA makes involve the exercise of discretion. In such cases, there may well be more than one acceptable or correct decision. In these cases, the law requires that CASA makes the “preferable” decision, that is, the most appropriate decision, having regard to the overriding interests of safety and the obligation to be fair.

In all such cases, CASA is bound to act in accordance with the applicable rules of administrative law. These rules govern how CASA arrives at the ‘preferable’ decision in any given case. Adherence to these rules is a requirement, not an option. Decisions and actions taken in contravention of these rules are unlawful, unenforceable, and in most cases invalid. CASA is legally accountable for the decisions it makes, and CASA decision-makers are obliged to avoid the appearance, as much as the reality, of unlawful decision-making.

Sound and lawful regulatory decision-making is generally governed by the 10 rules of administrative law summarised below. Adherence to these rules is essential to CASA’s obligations of accountability and good governance.

#### 1. **Natural Justice** (Procedural Fairness)

- **Hearing Rule.** Persons affected by CASA’s decisions have a right to be heard. To be meaningful, the hearing rule normally requires that CASA provides persons with notice (usually in advance) that a particular decision is going to be taken, and the reasons for the decision CASA proposes to take. Without notice and a statement of reasons, there may be little point to providing a person with an opportunity to be heard.
- **Rule Against Bias.** Decision-makers should not have a **personal** or **pecuniary interest** in the outcome of their decisions. Neither may decision-makers prejudge (or **pre-determine**) matters in respect of which they are called upon to make a decision.

2. A decision-maker must not act for **improper purposes**. Even if the purposes for which a particular decision are lawful, the decision may only be taken for the purposes specifically authorised by the law under which the decision has been taken.
3. A decision-maker must not take any **irrelevant considerations** into account in coming to a decision.
4. A decision-maker must take all **relevant considerations** into account in coming to a decision.



# Operational Standards and Requirements—Approved Synthetic Trainers (FSD2)

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**Note:** Applicable Policy is Always a Relevant Consideration.

5. A decision-maker must act on the basis of **evidence**, not mere supposition or speculation.
6. A decision-maker must not formulate requirements in **vague** or **uncertain terms**.
7. A decision-maker must not **inflexibly apply policy** (although departures from policy will normally need to be justified).
8. A decision-maker must not **act under dictation** (although this does not preclude adherence to formal directions, compliance with lawful conditions in relation to the process by which a decision is taken or the obligation to consult in the process of considering a decision).
9. A decision-maker must decide the matter within a **reasonable time**.
10. A decision maker must not act in a way that is manifestly **unreasonable**. A decision must not be so unreasonable that no reasonable person would make such a decision.

**Note:** The meaning and application of these principles, and related considerations of administrative law, are covered more fully in the induction and orientation training undertaken by all CASA employees. Any questions in relation to these matters should be referred to the Legal Services Division.

### *Departure from Authorised Policy*

Adherence to CASA's authorised policies will almost always produce an appropriate decision. As said, however, from time to time there will be circumstances in which the strict application of policy may not result in the "preferable" decision. In these cases it may be appropriate (and possibly necessary) to depart from otherwise applicable policy.

Any departure from policy must be justified in order to ensure that it:

- Is genuinely necessary in the interests of fairness
- Does not inappropriately compromise the need for consistent decision-making; and, of course
- Is not in conflict with the interests of safety.

Without fettering a decision-maker's discretion, it is therefore expected that appropriate consultation will occur before a decision is made that is not the product of the policies and processes set out in this manual. The prescribed consultation process is described below.



### Consultation Process

#### Decision-Maker's Responsibilities

When a decision-maker believes there is a need to depart from policy he or she is expected to consult with his or her direct supervisor. This process should be initiated in writing:

- Setting out the pertinent facts and circumstances
- Identifying the provisions of the policy normally applicable
- Stating why the application of that policy would not result in the making of the “preferable” decision in the circumstances to hand
- Specifying the approach the decision-maker believes is more likely to result in a “preferable” decision.

#### Supervisor's Responsibilities

In considering a consultative referral, the decision-maker's supervisor should:

- Advise the decision-maker as to whether his or her assessment of the relevant considerations appears to be complete and correct
- If, in the opinion of the supervisor, the circumstances do not warrant a departure from policy, provide the decision-maker with written advice and guidance as to how the decision might more properly be approached within the current policy framework

**Note:** Reliance on relevant precedent is a sound basis on which to ground such an opinion. It may also be helpful to seek advice from peers, superiors and/or CASA's Legal Services Division.

- If, in the opinion of the supervisor, a departure from policy is warranted, the supervisor should ensure the policy sponsor (normally the relevant Executive Manager) is advised of:
  - i. The intention to depart from the otherwise applicable policy
  - ii. The alternative approach the decision-maker will be taking to the matter.

**The supervisor should ensure that a full written record of these actions is made and maintained.**



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**Note:** In no case may the terms of decision be dictated to a delegate authorised to exercise discretionary decision-making powers.

If a decision-maker's supervisor or the policy sponsor is not satisfied that the decision the decision-maker intends to make is the correct or preferable decision in all the circumstances, responsibility for that decision should be assumed by, or assigned to, another authorised delegate in accordance with appropriate processes and procedures.

### Policy Sponsor's Responsibilities

If the policy sponsor concurs in the proposed departure from policy, he or she should ensure the decision-maker is advised accordingly as soon as possible.

If the policy sponsor does not believe the proposed departure from policy is warranted, he or she should:

- Advise the supervisor accordingly
- Assume responsibility for the decision
- Ensure that the decision-maker and any person affected by the decision (for which the policy sponsor has assumed responsibility) is advised accordingly
- Make the decision in a manner consistent with the applicable policy.

**The policy sponsor should ensure that a full written record of these actions is made and maintained.**

Nothing in these processes should be interpreted or applied so as to dictate the terms of the decision to be made by a decision-maker authorised to make discretionary decisions under the civil aviation legislation, or to delay unreasonably the making of such decisions.

### Revisions to Policies and Manuals

As a result of experience in applying policies and procedures, users will form views as to accuracy, relevance and applicability of the content.

CASA personnel are required to provide recommendations for revisions to policies and processes in this or any other manual should they become aware of shortcomings. In this way the policies and manuals will be continually improved and remain relevant to the tasks being undertaken.



# Operational Standards and Requirements—Approved Synthetic Trainers (FSD2)

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Each policy and manual has a sponsor and recommendations for amendment are to be forwarded to the relevant individual for consideration. The revision process can be accessed via the link:

[http://casaconnect/manuals/doc\\_control/process.htm](http://casaconnect/manuals/doc_control/process.htm)

# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 1. Introduction

Approved by Group General Manager, Personnel Licensing, Education and Training Version 1.2: January 2002

### About this Publication

- 1.1 The purpose of this publication is to describe:
- The categorisation of synthetic trainers
  - The credits available for each category
  - The standards and functional requirements for a synthetic trainer to gain and maintain approval to a specific category
  - Synthetic trainer operations manual requirements
  - The requirements for synthetic trainer instructors and approved test officers
  - The approval process for synthetic trainers.
- 1.2 The terms and abbreviations used in this publication are consistent with the Civil Aviation Regulations, Civil Aviation Orders and the Aeronautical Information Publications. The definitions and abbreviations provided below are particularly relevant.

#### Terms

Approved Software	Software name and version number used in the accreditation of an approved synthetic trainer.
Approved Synthetic Trainer	Ground training device other than a flight simulator that simulates or represents flight conditions, aircraft characteristics and a cockpit environment in accordance with the specified standards and requirements.
Synthetic Flight Trainer	Flight simulator or synthetic trainer.
Synthetic Trainer Certificate	The instrument of approval issued to the operator by CASA for a synthetic trainer authorising the credits available from its operation.



# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 1. Introduction

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### Abbreviations

ADF	Automatic Direction Finder
ATO	Approved Test Officer
DME	Distance Measuring Equipment
FOI	CASA Flying Operations Inspector
GPS	Global Positioning System
IFR	Instrument Flight Rules
ILS	Instrument Landing System
STC	Synthetic Trainer Certificate
STOM	Synthetic Trainer Operations Manual
VOR	VHF Omni-directional Range

### Classifications of Synthetic Flight Trainers

- 1.3 Synthetic flight trainers are classified as either flight simulators or synthetic trainers. This document specifies CASA's standards and requirements for the approval of synthetic trainers. The standards and requirements for the approval of flight simulators are set out in FSD-1.

### CASA's Authority to Approve Synthetic Flight Trainers

- 1.4 [Part 5](#) of CARs enables CASA approval of synthetic flight trainers and CAO 45.0 specifies the general requirements for their approval. FSD-1 and FSD-2 are authorised by CAO 45.0.



# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 1. Introduction

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### Uses of Synthetic Flight Trainers

- 1.5 Approved synthetic trainers may be used to accrue aeronautical experience for the purposes of:
- Instrument ground time
  - Instrument approach recency
  - The issue of pilot licences
  - Flight testing for the purpose of renewing navigational aids endorsed on an instrument rating.

**Note:** For initial endorsement of GPS or DME arrival procedure, proficiency may be demonstrated in an approved synthetic trainer.

### Approval Categories

- 1.6 Synthetic trainers may be granted approval in one of three categories— **A**, **B**, or **C**— depending on their compliance with the specification for each category as set out in this publication. Category A has the least complex specification.



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## 1. Introduction

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# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 2. General Specifications for each Category of Synthetic Trainer

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### About this Section

- 2.1 This section describes the general specification for each category of synthetic trainer.
- 2.2 The detailed specifications required for accreditation and recurrent fidelity of each category are set out in [form 248 Approved Synthetic Trainer Standards](#). CAO 45.0 sets out the periodicity required in the conduct of recurrent fidelity checks.

### Category A Trainers

- 2.3 Category A synthetic trainers:
- Provide:
    - Training in instrument flight procedures
    - Training in limited navigation aid procedures, orientation and homing
    - With special requirements, training in visual flight procedures
  - Require:
    - A cockpit enclosure
    - Basic flight instrumentation
    - ADF or VOR
    - Aerodynamic simulation
    - Aircraft controls
    - Limited instructor facilities
    - A flight path display.

**Note:** For training in visual flight procedures, visual and motion systems, see section [3 Credits Available](#).

### Category B Trainers

- 2.4 Category B synthetic trainers:
- Provide:
    - Additional training in instrument flight procedures
    - Training in instrument cross-country navigation
    - With special requirements, training in visual flight procedures



# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 2. General Specifications for each Category of Synthetic Trainer

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- Require:
  - ADF, VOR, ILS and DME or GPS
  - Cockpit enclosure (not required for logging recent experience)
  - Full instrumentation and controls
  - Realistic aerodynamic simulation and characteristics
  - Full instructor facilities (not required for logging recent experience)
  - Flight path display.

**Note:** For training in visual flight procedures, visual and motion systems, see section [3 Credits Available](#).

### Category C Trainers

2.5 Category C synthetic trainers:

- Provide:
  - A Category B standard synthetic trainer
  - Simulation of a specific aircraft type
- Require:
  - The standards applicable to Flight Simulators set out in subsections 11.1 and 11.4 of FSD-1.

# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 3. Credits Available

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### Conditions of Operation

- 3.1 For credits to be applicable for the purposes of issue of a flight crew licence or rating, the synthetic trainer must be operated in accordance with the following conditions:
- An instructor is present at the instructor station for the duration of the flight
  - The synthetic trainer has been approved in the appropriate category and for the appropriate credit
  - The limitations of the minimum equipment list are observed
  - Training is conducted in accordance with the STOM.
- 3.2 Instrument rating holders may use a synthetic trainer to log instrument ground time to meet the recent experience requirements of CAO 40.2.1 without the presence of a flight instructor, provided the simulated flight path and flight duration can be verified. Verification may be by means of automatic recording of the date, flight path and flight duration by the synthetic trainer software. Alternatively, if the trainer does not have automatic recording facilities, an authorised flight instructor who can verify that data may sign the pilot's logbook to that effect.

### Category A Trainers

- 3.3 The credits available to an approved Category A synthetic trainer are:
- Instrument ground time for:
    - CAR 5.60
    - GFPT CAR 5.76(4)
    - PP(A)L CAR 5.85(5)
    - CP(A)L CAR 5.112(3)
    - CP(A)L CAR 5.116(2)
    - ATP(A)L CAR 5.173(3)
  - Instrument rating instrument ground time, in accordance with Table 2 of Appendix II to CAO 40.2.1
  - With a motion and visual system to the standards set out in FSD-1 subsections 10.3 and 10.4 respectively, aeronautical experience for:
    - PP(A)L CAR 5.85(2)
    - CP(A)L CAR 5.112(1)



# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 3. Credits Available

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- CP(A)L CAR 5.116(1)
- ATP(A)L CAR 5.173(5)
- ATP(H)L CAR 5.182(3).

### Category B Trainers

3.4 The credits available to an approved Category B synthetic trainer are those available for Category A, and:

- Instrument rating instrument ground time, in accordance with Table 2 of Appendix II to CAO 40.2.1
- Instrument rating instrument approaches, in accordance with Table 2 of Appendix II to CAO 40.2.1

### Category C Trainers

3.5 The credits available to an approved Category C synthetic trainer are those available for Category B, and:

- Instrument ground time for:
  - CP(airship)L CAR 5.159(3)
  - CP(airship)L CAR 5.161(2)
- With a motion and visual system to the standards set out in FSD-1, subsections 10.3 and 10.4 respectively:
- Aeronautical experience for the issue of a:
  - CP(airship)L CARs 5.159(1) or 5.161(1)
- Regular flight reviews for:
  - PP(A)L CAR 5.81(2)
  - PP(H)L CAR 5.91(2)
  - PP(G)L CAR 5.99(2)
  - CP(A)L CAR 5.108(2)
  - CP(H)L CAR 5.124(2)
  - CP(G)L CAR 5.133(2)
  - CP(airship)L CAR 5.154(2)
  - ATP(A) L CAR 5.169(2)
  - ATP(H) L CAR 5.178(2)

### General Requirements

- 4.1 To utilise the credits available, the approved synthetic trainer must be operated in accordance with its STOM. A copy of the STOM must be provided in the trainer.
- 4.2 CASA may only issue a synthetic trainer certificate (STC) if it is satisfied with the content of the STOM. Therefore, any subsequent amendments to the STOM require CASA's prior approval. A STOM must include:
- A copy of the STC.
  - A list of authorised instructors.
  - A minimum equipment list.
  - A maintenance form that provides for the reporting and clearing of defects, including the date, time and author of each entry.
  - A system to reasonably assure that the trainer maintains the required standards. This can be either a system of recorded periodic calibration or a system of continuous monitoring and appropriate certification.
  - A section containing adequate operating procedures and instructions for pilots, which must include:
    - A description of the trainer
    - A description of the trainer's systems and capabilities
    - Operating procedures and checks for normal operations
    - Operating procedures and checks for simulated emergency operations
    - Clearly marked instructions or procedures for any **real** emergencies or limitations.
  - A section containing adequate operating procedures and instructions for instructors which must include:
    - Operating procedures and checks for normal operations
    - Instructions on the use of the instructor's console
    - Instructions for the use of the flight path display device
    - Clearly marked instructions or procedures for any **real** emergencies or limitations.
  - If logging of recent experience by an instrument rating holder without the presence of an authorised instructor is permitted, a section containing the procedures for recording and verifying the date, flight path and flight duration must be included.



### Training Syllabuses

- 4.3 The STOM must contain the training syllabuses and sequences applicable to:
- The trainer's approved credits
  - Pilot endorsement and certification
  - Instructor endorsement and certification.
- 4.4 The description of the sequences required in each syllabus must be sufficiently detailed so that they could be flown without further explanation. For example, for an instrument approach recency credit, the syllabus will need to include tracking to an initial approach fix and the complete approach procedure to the missed approach point or decision altitude.
- 4.5 Syllabuses must clearly indicate the sequences where simulated air traffic procedures are required.

# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 5. Instructors and Approved Testing Officers

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### Synthetic Trainer Instructors

- 5.1 To act as a synthetic trainer instructor, a person may qualify in one of the two following ways.
- a. Hold documentary evidence of the following qualifications:
    - Hold or have held an authorisation to give conversion training **or** be certified by an FOI (on letterhead to the instructor) as competent to instruct on synthetic trainers
    - Hold a pilot endorsement on the make and model of synthetic trainer
    - Hold an instructor endorsement on the make and model of synthetic trainer.
  - b. Where the person is the operator's first instructor on the type and model of synthetic trainer, hold a CASA FOI certification of personal competence as a synthetic trainer instructor, equivalent to the standard expected under subparagraph a above.
- 5.2 To give training for the issue of an instrument rating, a synthetic trainer instructor must:
- Hold or have held an authorisation to operate an aircraft in command under IFR, and
  - A CAR 5.20 approval **or** be certified by an FOI (on letterhead to the instructor) as competent to give training for the issue of an instrument rating.

**Note:** If a synthetic trainer instructor does not hold a CAR 5.20 approval, a periodic assessment and certification by an FOI is required.

### Approved Test Officers

- 5.3 To conduct flight tests for the issue of an instrument rating in a synthetic trainer, a person must hold:
- The appropriate CAR 5.19 delegation, and
  - Written approval from a FOI to conduct instrument rating tests using that make and model of synthetic trainer.
- 5.4 Written FOI approval to conduct instrument rating tests in a synthetic trainer will be given to CAR 5.19 delegates who:
- Are qualified to act as a synthetic trainer instructor on that make and model, and
  - Have satisfactorily demonstrated the conduct of an instrument rating test using that make and model of synthetic trainer.



# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 5. Instructors and Approved Testing Officers

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- 5.5 Persons who are unable to qualify for the issue of a CAR 5.19 delegation in an aircraft may qualify by meeting the following requirements:
- 100 hours experience as pilot in command in IFR operations
  - 250 hours 'flight time' as an instructor on a synthetic trainer
  - Demonstrate to an FOI:
    - A comprehensive knowledge of instrument flight and the current IFR, and
    - The satisfactory conduct, including all pre- and post-flight procedures, of at least two instrument rating flight tests using a synthetic trainer.

**Note:** Where a synthetic trainer ATO does not hold a current command instrument rating, a satisfactory assessment of the person's conduct of a flight test and an assessment of their IFR knowledge by an FOI must be conducted before the delegation is renewed.

- 5.6 An application for a CAR 5.19 ATO delegation using a synthetic trainer should be made in writing to the responsible District Office.

## 6. Approval of Synthetic Trainers

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### Applications for Approval

- 6.1 Applications for approval of a synthetic trainer should be made in writing to CASA through the responsible District Office.
- 6.2 An application shall contain:
- A brief description of the trainer and its capability, including the manufacturer's name, model and serial number
  - If applicable, the name and version number of the computer software employed
  - If applicable, the specification of the hardware to be used
  - The category of approval sought
  - Credits sought
  - A controlled copy of the STOM.

### Inspection for Accreditation

- 6.3 A synthetic trainer that is to be used for the purpose of accumulating experience for the issue of any flight crew qualification must be inspected for accreditation by a CASA Flying Operations Inspector.
- 6.4 The accreditation inspection will require:
- A fully serviceable synthetic trainer
  - A synthetic trainer instructor (qualified on type).
- 6.5 Detailed results of the inspection must be recorded on the accreditation test guide, [form 248 Approved Synthetic Trainer Standards](#). A copy of the completed accreditation test guide, and those subsequently used in recurrent fidelity checks, must be retained permanently with the trainer.



## 6. Approval of Synthetic Trainers

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### Form of Approval

- 6.6 The form of approval for a synthetic trainer is provided in the [Synthetic Trainer Certificate](#), and [Schedule 1](#) and [Schedule 2](#). (The proformas of the certificate and schedules are available on the CASA intranet.)
- 6.7 A synthetic trainer which is to be used only for the purposes of logging recency by the holder of a current instrument rating or a Private IFR rating may be issued with a certificate of approval and used for this purpose without having an accreditation inspection by a FOI provided that:
- The synthetic trainer is of the same make, model, software version, and
  - The control system is one which has already been approved and used for this purpose without having an accreditation inspection, and
  - A copy of this approval is included in the STOM.
- 6.8 A certificate of approval will be issued if the owner or operator of the synthetic trainer supplies the following information to CASA:
- The make, model, software version and manufacturer's serial number of the synthetic trainer, including the control system, and
  - A copy of the CASA certificate of approval for that make, model, software version and control system of synthetic trainer, and the system which will be used to verify ground time logged on the synthetic trainer, and
  - The name of the owner or operator and the address at which the synthetic trainer will be operated.
- 6.9 When issuing a certificate of approval for a synthetic trainer that is only approved for logging recency, Schedule 1 should not be included in the certificate. Also be aware that none of the credits listed in Part 2, Flight Crew Licensing Credits are applicable.

### Synthetic Trainer Certificate—Procedure

- 7.1 The Certificate is generated using the MS Word 95 (Version 7) form feature. It is a locked document:
- This means that you can only access data entry fields. Use the Tab key to cycle through the data entry fields. Alternatively, use the cursor to go to a specific data entry field.
  - When you try to save the document, you will need to enter a new filename.

There are two types of data entry fields: fields where you type information and fields where you select information. All data entry fields have help, telling you what to enter. When the cursor is in a field, the help displays in the status line at the bottom of the screen. Alternatively, you can press F1 to display help in a pop-up window. (Be aware that the amount of help text that displays in the status bar may depend on the size of your monitor. If the text seems cut off, use the F1 help to display the full text.) Some fields are cross-references, which will update on printing.

To complete the form:

1. Press Tab to cycle through the fields or use the cursor to go to a particular field.
2. To enter information in the field, type text or select from the pull-down list. Follow the help displayed in the status bar at the bottom of the screen or press F1 to display the help pop-up. You can overwrite any entered information.

**Note:** The form allows for optional text to be included if the instrument revokes a previously issued instrument. This part of the form consists of three separated items:

- a. Select field that includes the text 'revokes Instrument Number' or a blank
- b. A text field in which you enter the Instrument Number of the instrument being revoked. You would only enter the number if you select text in step a.
- c. A third select field that includes the text 'and' or a blank. You would only select 'and' if you selected and typed text in steps a and b.

3. Two fields are cross-referenced: the name of the officer signing the certificate and the instrument number. Once entered at the top of the form, the cross-references fill in automatically when you print the form. Print the certificate on the appropriate paper.
4. The proforma version of the form is read-only. To save the completed form, you must give it a new filename and save it to an appropriate directory.



# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 7. Completing the Certificate and Schedules

Approved by Group General Manager, Personnel Licensing, Education and Training Version 1.2: January 2002

Instrument Number: {NNNNN/YY}

### CIVIL AVIATION ACT 1988 CIVIL AVIATION REGULATIONS CIVIL AVIATION ORDERS

#### SYNTHETIC TRAINER CERTIFICATE

I, {full name of officer},  
(a) on behalf of CASA, under Section 45.0 of the Civil Aviation Orders,  
(i) approve the {make and name} synthetic trainer, serial number {no.}, using  
{name} software, version number {no.}, operated by

Name of Operator}  
Aviation Reference Number {no.}

as a

#### CATEGORY C SYNTHETIC TRAINER

(ii) approve the instrument rating credits specified in Part 1 of Schedule 1.

(b) a delegate of CASA, under the Civil Aviation Regulations specified in Part 2 of Schedule 1, approve this synthetic trainer for the purposes of those regulations.

This instrument:  
revokes Instrument Number {NNNNN/YY} and  
stops having effect at the end of {date}.

An example of a text field. The help in the status bar reads 'Insert name of the operator. Max 70 characters.'

An example of a select field. You can select A, B or C. The help in the status bar reads 'Enter the Category. Select A, B or C from the dropdown list. Max 70 characters.'

These fields are cross-references. They update automatically when you print.

The circled text is only included if an instrument is being revoked. This part of the form consists of three separate elements:

1. A select field containing the text 'revokes Instrument Number' or a blank
2. A text field in which you enter the Instrument Number of the instrument being revoked. You would only enter the number, if relevant
3. A select field containing the text 'and' or a blank.

# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 7. Completing the Certificate and Schedules

Approved by Group General Manager, Personnel Licensing, Education and Training Version 1.2: January 2002

### Schedule 1—Procedure

7.2 Schedule 1 is a locked MS Word 95 (Version 7) document. This is page 1. The base text includes the credits for Category A only. You use Word's Autotext feature to insert the credits for Category B and C. It is a locked document, so that when you try to save it, you will need to enter a new filename and save it to an appropriate directory. Print the schedule on the appropriate paper.

#### SCHEDULE 1 TO INSTRUMENT NUMBER NNNNN/YY CREDITS

- Note:
- For credits to be applicable, the synthetic trainer must operated in accordance with the following conditions:
    - An instructor is present at the instructor station for the duration of the flight.
    - The synthetic trainer is approved in the appropriate category and for the appropriate credit.
    - The limitations of the minimum equipment list are observed.
    - Training is conducted in accordance with the synthetic trainer operations manual.
  - Credits for training in visual flight procedures are not approved.

You must work with Display Bookmarks switched on.

- Select Options→Tools→View→Show: Bookmarks→OK.
- Carefully overtype NNNNN/YY with the Instrument Number, making sure you type only within the big grey brackets (the bookmark boundaries) and that you do not delete them.

#### PART 1 - Instrument Rating Credits

##### Initial Issue

- 20 hours instrument time
- DME or GPS arrival
- 15 hours cross-country time

##### Recency

- Two hours (of the three) instrument time requirements in 90 days
- NDB, VOR, ILS, LLZ, GPS/NPA, DME or GPS arrival
- One hour instrument time in 90 days for single pilot recent experience requirements

##### Renewal

- NDB, VOR, ILS, LLZ, GPS/NPA.

The circled text for Initial Issue, Recency and Renewal is included only for category B and C synthetic trainers.

- Create a new paragraph.
- Select Edit→Autotext→part 1 credits b or c→Insert.
- You may need to do a bit of tidying up formatting.

Approving Officer's Initials .....

Instrument Number NNNNN/YY

Page 1 of 3 pages

To update the Instrument Number field here:

- Place the cursor in the footer field and double-click to open the footer.
- Highlight NNNNN/YY and press F9. (The field is updated, based on the Instrument Number you entered at the top of the document. This is why the bookmark is so important.)
- Click anywhere outside the footer to close the footer.



# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 7. Completing the Certificate and Schedules

Approved by Group General Manager, Personnel Licensing, Education and Training Version 1.2: January 2002

7.3 This is page 2 of Schedule 1. The base text includes the credits available to all categories. Additional credits are available to Category C synthetic trainers, which you insert using Word's Autotext feature.

### PART 2 - Flight Crew Licensing Credits

#### Credits Available

##### Instrument Ground Time for:

- CAR 5.60
- GFPT - CAR 5.76(4)
- PP(A)L - CAR 5.85(5)
- CP(A)L - CAR 5.112(3)
- CP(A)L - CAR 5.116(2)
- CP(airship)L - CAR 5.159(3)
- CP(airship)L - CAR 5.161(2).
- ATP(A)L - CAR 5.173(3)

##### Aeronautical experience for:

- PP(A)L - CAR 5.85(2)
- CP(A)L - CAR 5.112(1)
- CP(A)L - CAR 5.116(1)
- CP(airship)L - CAR 5.159(1)
- CP(airship)L - CAR 5.161(1).
- ATP(A)L - CAR 5.173(5)
- ATP(H)L - CAR 5.182(3).

##### Regular flight reviews for:

- PP(A)L - CAR 5.81(2)
- PP(H)L - CAR 5.91(2)
- PP(G)L - CAR 5.99(2)
- CP(A)L - CAR 5.108(2)
- CP(H)L - CAR 5.124(2)
- CP(G)L - CAR 5.133(2)
- CP(airship)L - CAR 5.154(2)
- ATP(A)L - CAR 5.169(2)
- ATP(H)L - CAR 5.178(2).

You insert this circled text for instrument ground time for category C trainers only.

1. Create a new paragraph.
2. Select Edit → Autotext → **part 2 credits c instruments** → Insert.
3. You may need to do a bit of tidying up formatting.

You insert this circled text for instrument ground time for category C trainers only.

1. Create a new paragraph.
2. Select Edit → Autotext → **part 2 credits c experience** → Insert.
3. You may need to do a bit of tidying up formatting

You insert this circled text for instrument ground time for category C trainers only.

1. Create a new paragraph.
2. Select Edit → Autotext → **part 2 credits c regular flight** → Insert.
3. You may need to do a bit of formatting to tidy up the text.

Approving Officer's Initials .....

Instrument Number NNNNN/YY

Page2 of 3 pages

To update the Instrument Number field here:

1. Place the cursor in the footer field and double-click to open the footer
2. Highlight NNNNN/YY and press F9. (The field is updated based on the Instrument Number you entered at the top of the document. This is why the bookmark is so important.)
3. Click anywhere outside the footer to close the footer.



# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## 7. Completing the Certificate and Schedules

Approved by Group General Manager, Personnel Licensing, Education and Training Version 1.2: January 2002

### Schedule 2—Procedure

7.4 Schedule 2 is a locked MS Word 95 (Version 7) document. **The credits apply to Category B and C synthetic trainers only.** When you try to save it, you will need to enter a new filename. Print the schedule on the appropriate paper.

#### SCHEDULE 2 TO INSTRUMENT NUMBER NNNNN/YY CREDITS

- Note:**
- For credits to be applicable, the synthetic trainer must operated in accordance with the following conditions:
    - All ground time logged by the holder of an instrument rating or private IFR rating using a synthetic trainer must be verified in accordance with the method specified in the STOM
    - The synthetic trainer is approved in the appropriate category and for the appropriate credit.
    - The limitations of the minimum equipment list are observed.
    - Training is conducted in accordance with the Synthetic Trainer Operations Manual
  - Credits for training in visual flight procedures are not approved.

You must work with Display Bookmarks switched on.

- Select Options → Tools → View → Show: Bookmarks → OK.
- Carefully overtype NNNNN/YY with the Instrument Number, making sure you type only within the big grey brackets (the bookmark boundaries) and that you do not delete them.

#### PART 1 - Recency

- Two hours (of the three) instrument time requirements in 90 days
- NDB, VOR, ILS, LLZ, GPS/NPA, DME or GPS arrival
- One hour instrument time in 90 days for single pilot recent experience requirements

To update the Instrument Number field here:

- Place the cursor in the footer field and double-click to open the footer.
- Highlight NNNNN/YY and press F9. (The field is updated based on the Instrument Number you entered at the top of the document. This is why the bookmark is so important.)
- Click anywhere outside the footer to close the footer.

Approving Officer's Initials .....

Instrument Number NNNNN/YY

Page 3 of 3 pages



**7. Completing the Certificate and Schedules**

Approved by Group General Manager, Personnel Licensing, Education and Training Version 1.2: January 2002

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**8. Approved Synthetic Trainers**

Approved by Group General Manager, Personnel Licensing, Education and Training Version 1.4: April 2008

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# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## Revision History

Approved by Group General Manager, Personnel Licensing, Education and Training Version 1.5: November 2010

**Note:** The Revision History shows the most recent amendment first. Scroll down the table to view details of previous amendment information.

Version	Date	Chapter/Section	Details
1.5	Nov 2010	Table of Contents	Preface added.
1.4	Apr 2008	Chapter 8	Table in <a href="#">Section 8.1</a> updated.
1.3	Feb 2006	Chapter 8	Table in <a href="#">Section 8.1</a> updated.
1.2	Jan 2002	<a href="#">2.5</a> and form <a href="#">248</a>  <a href="#">8.1</a>	References to subsections 10.1 and 10.5 in the <i>Operational Standards and Requirements - Approved Flight Simulators FSD-1 Manual</i> adjusted to 11.1 and 11.4 respectively.  ATC 670 changed to ATC 710 and ATC 670K changed to ATC 710K.
1.1	Jan 2001	All	All sections revised.
1.0			This manual was originally an annex in the <i>Air Operator Certification Manual</i> . Now a stand-alone manual.

# Operational Standards and Requirements—Approved Synthetic Trainers (FSD-2)

## Revision History

Approved by Group General Manager, Personnel Licensing, Education and Training Version 1.5: November 2010

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